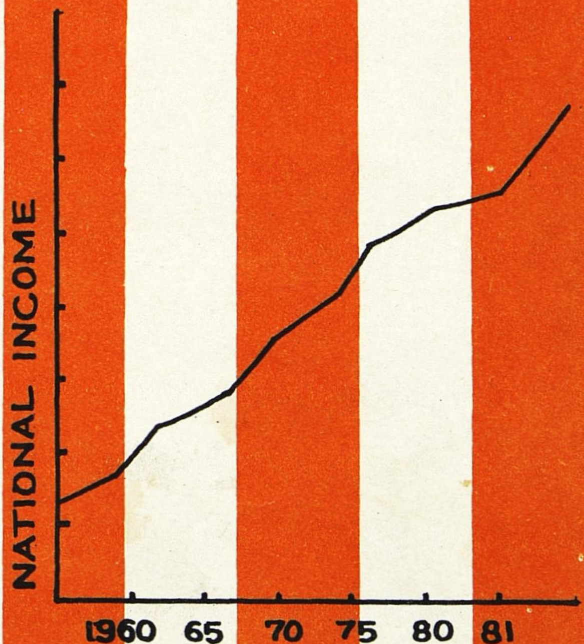
# ECONOMICS AN INTRODUCTION

## HIGHER SECONDARY - SECOND YEAR




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# ECONOMICS

## – AN INTRODUCTION

HIGHER SECONDARY—SECOND YEAR

TAMILNADU
TEXTBOOK SOCIETY
MADRAS

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## PART I — GENERAL

# 1. INTRODUCTION

**What is Economics about?**

Two centuries ago Edmund Burke, the great English statesman orator and writer lamented the passing away of the age of chivalry and the coming of the age of mundane philosophies in the following manner :

"The age of chivalry is gone; that of sophisters, economists and calculators has succeeded".

His prediction has come true. Today economics has become an important subject of study and economists a much sought after tribe.

We shall, therefore, examine the nature of economics which you have chosen to learn.

Economics may be said to be the oldest of arts and the newest of sciences. As soon as man began to produce the food that he needed and the cloth that he required, his actions involved choice among the various uses of the limited resources like land, labour and capital at his disposal. Hence the attempt at economising of the limited resources is as old as civilization. But Economics gained the characteristics of a science only a hundred years ago.

Economics is a social science. It deals with matters which are important to our every-day life and intimately connected with the material life of every one of us. There are other social sciences too (sociology, psychology, politics, ethics, law, etc.) which study different aspects of man's life. Economics which has come to be called the queen of social sciences undertakes a study of man in the ordinary business of life. It concerns itself with man's occupation, income, expenditure,

saving, investment, buying and selling, the demand for and supply of goods, price determination in the market for goods and services, trade, taxation and the like. In other words it is concerned with those aspects of man's activities which are closely related to wealth. The chief aim of economics is to examine man's activities, thoughts, behaviour and expectations in relation to production and consumption of wealth. Besides, Economics includes within its scope a study of the income and expenditure of government, its saving and investment, planning for economic development, taxation, agricultural policy, export and import policies etc.

Economics also examines the different economic systems which are prevalent in the world like capitalism, socialism, communism and mixed economy. The advantages and disadvantages inherent in each of these systems are analysed by economists so as to present a true picture of each.

Even if one is not interested in knowing what the different economic systems are, one will find it almost essential to get to know the economic problems which are, so to say, the central problems of life These are the problems of earning one's living, the country's problem of wealth production, distribution of income, poverty, unemployment, also the solutions to these problems. One can understand through a study of economics why such problems arise and put the individual, the citizen, the society, and the country to a lot of trouble.

Let us first clarify these problems so as to understand them better.

**(a) Individual's Problems**

Why is your father, brother or uncle unemployed? What kinds of jobs will be available to them? What remuneration will they get? What is the value of money today? What will happen to the value of money if an inflationary spiral were to occur? How is it possible to make profits in the stock market or stock exchange? How to make a success of a business or industry? Economics claims to analyse these

questions as well as indicate the probable solutions to such economic problems.

**(b) Country's Problems**

What are the causes of poverty in our country?

How can be free our country from the vicious circle of poverty low income and unemployment caused by excessive population?

How is to manage the scarcity of natural resources in our country?

How can our country achieve economic growth and development as the countries of the west have done?

How are we going to draw up plans and policies required to achieve the economic development of our country?

How was it possible for the United States of America, Germany, Sweden and Japan to enable almost every home in the country to enjoy consumer durables like colour television, refrigerator, electric oven, air-conditioner, telephone, musical instruments and motor cars?

What was that which made it possible for the Western countries to enjoy dustless roads, rapid transport, underground railways, luxury liners and the like?

Why is it we in India can only dream about these good things of life but cannot have enough of them?

**(c) Citizen's Problems**

Should the Central and State Governments impose taxes on me for improving the lot of the poor? or will the Goverment obtain the required finance through the profits of the government industrial enterprises?

What will be the effects of government fixation of minimum wages to improve the level of earnings of agricultural labourers?

How far is it true that the provision of jobs to the wives of employed men will deprive unemployed men of employment opportunities?

Should we commence construction of more schools and hospitals now or postpone it till the time of an economic depression when prices will fall and the number of unemployed men will rise?

Should we export our vegetables and fruits to foreign countries to earn foreign exchange? or is it better to consume them all internally?

Should we import sugar, cement, petrol and edible oils or not?

What are the advantages and disadvantages of monopoly businesses to society? Should we legislate to control their activities or not?

Which is better?— A small or large deficit in the budget of the government.

Should the government intervene in the working of the market forces like demand, supply and price with a view to control them?

Is it necessary or not to arrange for the distribution of essential commodities through controls and rationing?

You should indeed be eager to know the right answers to these questions!

There is no doubt that through learning economics you would come to know that answers to all these questions could be found with the help of economic concepts, theories, ideas, analysis and inferences of economists.

## 2. Why should we bother to learn economics?

You are likely to feel a keen enthusiasm to learn economics once you discover the interesting remarks made about economics by great men and literatures. The following are

the views expressed by some of them on the importance of the concepts and ideas of economic science :

**Adam Smith** : 'The uniform, constant and uninterrupted effort of every man to better his condition... is powerful enough to maintain the natural progress of things toward improvement.'

**Malthus** : 'Political economy (Economics) is perhaps the only science of which it may be said that the ignorance of it is not merely a deprivation of good, but produces great positive evil.'

**Cardinal Newman** : 'Political economy is...a science at the same time dangerous and leading to occasions of sin.'

**Keynes** : 'The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood; indeed the world is ruled by little else.'

**Kural** : 'Shortage of revenues is not a misfortune if expenditure is within bounds.'

**Kautilya** : 'Wealth is to be acquired grain by grain as learning is to be acquired every moment.'

**Wooton** : 'No one today can claim to be a citizen of his or her country in the real sense if he or she is not an economist to some degree.'

**3. What is the part of the economic problem in our life?**

Suppose you stand at a street junction one morning on any working day and observe the crowd of people passing the place in haste. What are you likely to see? You would see workers hurrying to their factories on hearing the siren; office-goers walking or cycling or commuting by bus to their offices; students, boys and girls, going to their schools or colleges or training institutions; doctors and nurses heading to the hospitals; industrialists engineers and managers driving to their factories and offices; housewives dressed in their best,

trotting along for shopping. If after viewing this spectacle, you decide to go round to see what economic activities are going on elsewhere, you would probably come across the following :

The teacher is teaching in the class room. The students are intently listening to the teacher.

The farmer is ploughing the field or sowing or harvesting the crop;

The worker in the factory is operating the machine to produce goods.

The transport worker is transporting or loading and unloading the goods.

What do all these activities mean?

They point to the important fact that almost every-one in society is engaged every day in some economic activity or other. He works to produce something whether it is a good or service which is in demand. By such productive work, he earns an income or his living.

The world revolves round such economic activities in the factories and fields concerned with the production, transport and distribution of innumerable goods and services which satisfy the wants or people. People toil and trouble day and night for earning their livelihood through some productive labour or other which brings them an income.

It is obvious, therefore, that the primary concern of the masses of people is to engage themselves in economic activities which secure for them the earnings required to make their living. The thoughts uppermost in the minds of people are their employment, income, consumption, standard of living and economic progress. The central concern of countries too are economic power and economic growth. If a nation's economic power (productive power) declines, it is likely to be plagued by poverty, unemployment, starvation

and suffering. An example of such a calamity is the world-wide Great Depression which was witnessed during the 1930's and which caused great economic misery in the lives of people in most countries of the world. Money markets and securities markets underwent a crash and the economy of the world was thrown out of gear. Working people lost their jobs due to the disappearance of demand for goods from buyers; income disappeared as people were thrown out of jobs in thousands. Poverty and squalor gripped societies; nobody knew the cause of this catastrophe, nor the immediate solution to it. Existing knowledge was of no avail; scriptures kept silent on this issue; other sciences could not provide any enlightenment on this debacle—except the science of economics. Economists like Keynes alone could unravel the mystery and bring out the causes and cures for such economic ills like the Great depression of the 1930's. Therefore, a knowledge of economics is an essential tool to diagnose economic ills or to understand economic problems with a view to finding possible solutions. Such a knowledge will enable us to find ways and means of improving the economic conditions of people, to make plans for economic growth development. You will naturally be eager to possess such a knowledge of economics. Is it not! Let us now examine the nature of this economic science which holds the key to all economic progress and advancement.

## 2. BASIC PROBLEMS OF ALL SOCIETIES

Let us see what are the basic economic problems to be solved by all societies (whether capitalist or socialist or communist)—Even a society of savages is no exception.

There are three such basic problems and they are :

What to produce? How to produce? and for whom to produce?

The way in which a society tries to solve these three problems almost determines its particular economic system. We can find out whether a particular society is capitalist or socialist or communist from the answers it has found for these three basic questions.

1. Each society has first of all to determine **what to produce.** Let us explain what is meant by this with the help of an illustration. 'What to produce' refers to the kind of goods to be produced and the quantities of each of the goods to be produced. Take for example the cultivation of crops on land. The producers of crops will have to decide whether to grow rice or sugarcane in their fields. If rice and sugarcane are already being produced by them they may have to decide whether they should put more land under rice and less land under sugarcane or vice versa. This depends, in a free market economy, on whether the demand for rice is going up or that of sugarcane is rising. If the price of rice in the market goes up due to a rise in the demand for it, it is a signal for increasing the production of rice. If, on the other hand, the price of sugarcane rises in the market, it is a reflection of the increased demand for it and growers of sugarcane will put more land under sugarcane to earn more profits. Thus the production of each crop will be governed by changes in the demand for it in the market. In a capitalist society, there is a free market and the production of various goods and their quantities are

determined by the market forces namely, demand, supply and price. Therefore, we can say that the kind of economic system in which the producers undertake production in response to the market signals only, namely changes in prices and the resulting changes in demand, is the capitalist economic system. Profit is the chief incentive for production under this system. Commodities whose production is likely to bring profits will alone be produced; the production of those which are likely to bring loss, will be given up. The chief examples of countries with such a capitalistic economic system are the United States of America, the United Kingdom, France, Germany and other West European countries, South Africa, the Asian countries of Malaysia, Singapore and Japan. India too was a full-fledged capitalistic economy until its independence. Only now, we are making attempts to transform it into a socialistic pattern of society.

We should note, on the other hand, that in the socialist or communist societies the market price mechanism does not by itself determine the production decisions of what to produce or how much of each commodity to produce. The government and the planning authorities in these countries first determine what are the basic or essential consumption goods which are to be provided in adequate quantities to the majority of their populations i.e. the masses of people in these countries. They then advice the production apparatus to produce these goods which will satisfy the requirements of the masses of people, without bothering about the profit or loss. They give priority to the production of the basic necessaries demanded by the masses rather than the production of luxury goods desired by the rich minority. In fact, prices and markets in these economies are subject to control by the government in the interests of the masses of the people who are poor and require economic protection.

In the socialist countries, the market is not free but is kept under control. In such a situation the free market price is not the sovereign, the needy consumer is the real sovereign; the market and the price become slaves to the people and are made to serve their interests. The commodities

to be produced, the quantities of them to be produced are determined not by the market but by the government, taking due account of the needs, wants and welfare of the poor masses. You will know that socialist countries in Europe and Asia like the Soviet Union, China and Vietnam, the East European countries of Poland, East Germany, Yugoslavia, Austria, Czechoslavia, Rumania and Hungery are following this controlled market system.

There are also a third category of countries which have adopted the mixed economic system or the mixed economy which differs from both the capitalist system and the socialist system referred above. Such mixed economics have neither given up wholly the free market system of the capitalist countries nor have been unwilling to adopt the progressive ways of the socialist countries like, for example, controlled market stable prices Central planning of production and distribution of commodities geared to the real needs and welfare of the masses. Examples of countries with such a mixed economy are India, Sri Lanka and Burma in Asia, and the newly independent African countries like Egypt, Tanzania and Zambia. By a stretch of imagination, even countries like England and France today claim to be mixed economies as Government control in these countries have been recently extended to even spheres of production and exchange. In all these countries the economy consists of the public sector and the private sector which are expected to not merely co-exist but co-operate in making the economy of the country to develop and achieve faster economic growth. These societies believe that through the joint partnership of the public and private sectors, they will be able to achieve maximum economic development.

2. We have now to see how the second basic problem of all societies, namely, **how to produce the commodities** which have to be produced is solved.

Who should produce what? What raw-materials and inputs are to be utilised? In what quantities are to be produced the desired commodities? What kind of technology should be

chosen for producing the goods? These are the questions which have to be answered. Each of the three types of societies described earlier finds its own individual answers to these questions depending upon its economic ideology and political philosophy. In the capitalist countries the answers are determined by the interplay of competition between the producers of commodities. Only those producers will ultimately succeed in the field of production whose cost of production is lower than those of others. Let us take the question of the technology to be adopted in production; in those countries in which land is scarce but men are abundant, land is likely to be cultivated intensively, absorbing more men per acre of land; the technology chosen will also be the one appropriate to such use of more labour and less land. It may be called the labour-intensive technology. Another illustration of the choice of technology is the use of fuel for energy. If the price of coal is less than the price of atomic fuel in terms of energy output, then coal will be preferred and steam engines and turbines will be the more suitable technology. Whether the required output of commodities should be produced on a large scale in huge factories or in small scale in tiny factories will also depend on the relative cost factors or cost-competitiveness of the two types of production. In capitalist economies the level of profits earned through either type of technology or scale of production will determine the choice of small or large-scale industry.

In the socialist economies in which the state aims at providing full employment opportunities to all its citizens, the technologies and methods of production chosen would be those which will assure employment to all. In contrast to this, in capitalist economies the technologies and methods of production chosen would be those which will result in the least cost of production and maximum profits without minding the level of employment. In fact, capitalist economies will not be averse to have some unemployment if thereby output is maximised or cost minimised.

3. The third basic problem to be solved by all societies is: **For whom to produce** (or for whom the bell tolls?). An

answer to this question will very much depend upon how incomes are distributed among the people i.e. the pattern of income distribution. One has to see whether incomes are evenly distributed among the people without great inequalities of income; or they are concentrated in the hands of the rich few, leaving the vast majority without adequate incomes or purchasing power. In any country, those who receive wages, salaries, land-rents, interest incomes and profit earnings will alone be in a position to buy goods and services. When they spend their incomes on particular goods of their choice like food items, dress materials and entertainment goods the demand for such goods will go up. Producers will rush to produce such goods in large quantities so as to earn large profits to themselves through the production and sale of such goods. Hence, if incomes are lop-sided and there is a rich minority and a poor majority, most of the production will be geared to satisfy the wants of the rich, who alone have the means to buy goods. Whereas the poor masses, left without adequate purchasing power, will not be able to get their wants satisfied. The producers will not pay attention to the production of goods required by the masses as they will not be able to make large profits through the satisfaction of the wants of the poor. Production of such goods will therefore be necessarily limited or not undertaken at all.

Fig. 2–1 shows how the three basic problems discussed above are solved in a capitalist economy.

Until now we concerned ourselves with how different societies find their answers to the three basic questions faced by them all. But this is not all. Now-a-days societies aspire not merely to enjoy a good standard of living in the present; they have developed a growing desire, in recent years, to achieve economic growth which means increased income and higher standard of living in the future. There is today practically no society in the world, even an African tribal society, which does not want to improve its standard of living in the future. Such a desire has become so intensive at present that all societies want also to solve this problem as eagerly as the three basic problems explained above.

This fourth problem is: how much of the current production should be allocated for current consumption or present enjoyment and how much should be allocated for investment for increased production in the future; in other

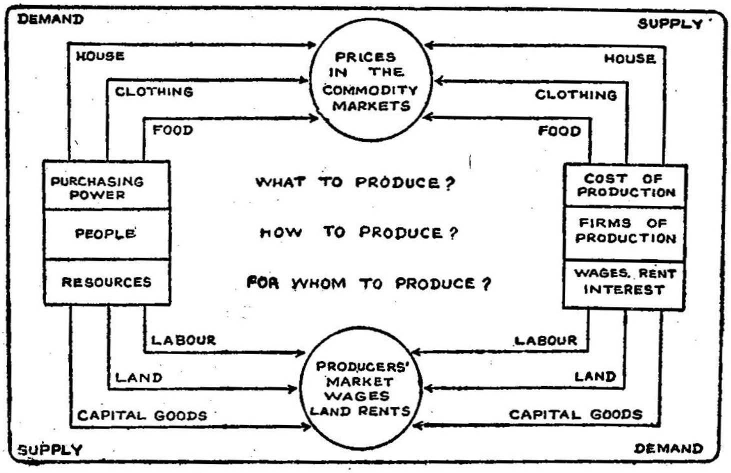



Fig. 2-1
Problems and Solutions

words, how much should be in the form or consumption goods how much in the form of capital goods or investment goods.

If a society devotes all of its present production to its current consumption needs only, its future will be dark, dismal and poor with increasing population and rapid depreciation of its instruments of production. Without more and more capital goods, for future production, even the present standard of living cannot be maintained in the future, let alone improved standard of living. On the other hand only if society sets aside a substantial part of its current production to the creation of capital goods for multiplying production in the future, its economic growth can be assured. Such Capital accumulation is to be achieved through building new factories, plants and machines, roads, harbours, dams, electricity generation plants, transportation

systems, communication facilities, educational and vocational training institutions. It will then be possible for its people to multiply production many-fold in the future and enjoy a growing standard of living over the years. It can therefore be said that an intelligent society will always think of the morrow in its economic life whereas a foolish society will blindly use all of its current productive capacity to produce goods for current consumption only. It will be like making only cakes and ice cream to eat and make merry today at the expense of tomorrow. The latter society is likely to suffer shortages of goods and become poorer in the future for its present folly of current consumption extravagance!

It is important to note many of the Western Countries which have advanced economically have been allocating during the past few advanced economically have been allocating during the past few decades almost one fourth of their annual production to capital goods. It is this high rate of annual investment for the future which has helped them to achieve a high rate of economic growth. Hence developing countries like India which wish to achieve fast economic growth to abolish poverty of the masses will have to follow this example. It really means a sacrifice to limit present consumption so as to provide for investment; but there is no other way of achieving future prosperity. Such a sacrifice will bear fruit in the form of increasing standard of living to the future generations of their people. It is an economic truth that today's sacrifice in consumption is a necessity for tomorrow's increased consumption. You will have understood by now why all societies have to solve this problem of how much production to be allocated to satisfy current consumption wants and how much to satisfy future consumption wants; in other words, how much for current consumption and how much for investment.

Fig. 2-2 and Fig. 2-3* illustrate this problem of allocation between the present and the future or the exchange between present consumption and future consumption.

* Adopted from the figures found in Paul A. Samuelsons' book 'Economics'.

The countries, 'A', 'B' and 'C' begin on the path of economic growth at the same point of time. But country 'A' does

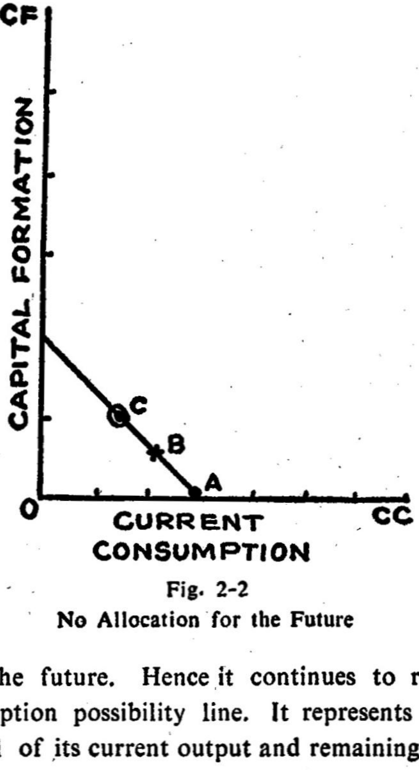



Fig. 2-2
No Allocation for the Future

not save for the future. Hence it continues to remain on the same consumption possibility line. It represents one extreme, consuming all of its current output and remaining on the same low level.

Country 'B' represents a middle position. It does not consume all of its current output. It saves a small proportion of its current production for investment and has got on the growth curve. It will enjoy a higher standard of living in the future.

Country 'C' occupies a high position. It allocates a substantial proportion of its current output to investment and thus makes a considerable sacrifice in the present. It invests it saving

in the production of new plants and machines and other capital goods. Hence it has got on to a high position on the growth curve.

Fig. 2-3 shows the position of the three countries 'A', 'B' and 'C' after an interval of some years. Country 'A' continues to remain static at a low level of consumption. It has no growth.

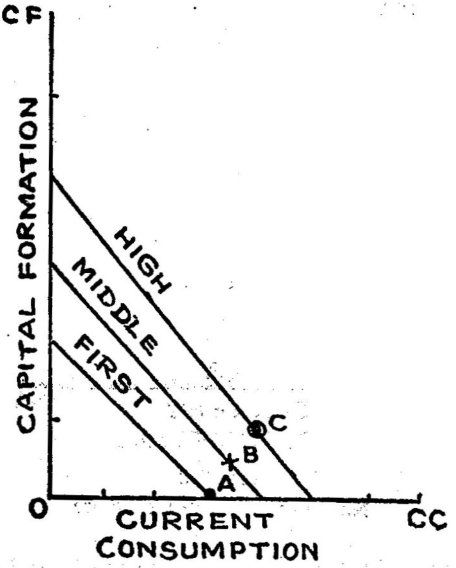



**Fig. 2-3**
**Allocation for the Future**

'B' has achieved a higher standard of living through some economic growth due to its saving. 'C' has achieved a high rate of economic growth because, of its high rate of saving and investment. The productive capacity of the country increases with investment and the standard of living of the people goes up. This is the position of developed countries.

# 3. NATURE AND SCOPE OF ECONOMICS

Every science has its own characteristics and its enquiries have well defined limits. For example, the science of mathematics deals with numbers; astronomy enquires about the celestial bodies and their path in the skies. The life sciences enquire about the structure of body cells and the animation of life. The structure of earth's layers is studied by geology. It is the purpose of chemistry to analyse chemicals and their reactions. Likewise, Economics enquires into how man manages to satisfy his many wants by utilising scarce resources or goods which are limited in supply. So Economics is said to be the science of scarcity by economists like Professor Lionel Robbins.

From an important angle, it is right to say that Economics deals with man in the ordinary business of life as Alfred Marshall, the father of modern economics, described economics. According to him economics enquires into how man earns his income and how he spends it. The earlier view of economics was that of Adam Smith, the father of classical economics, who gave to his celebrated book published in 1776, the title ''An Enquiry into the Causes of the Wealth of Nations.' This older view that economics is concerned with wealth has now given place to the modern view that economics is mainly concerned with the economic welfare of man; In other words, it is concerned with man and his material welfare which wealth can bring.

However, it should be emphasised that the end of all economic activities is consumption. In the early stages of man's life upon this earth his wants were few. He had only to satisfy the wants for food, clothing and shelter. But, with passage of time and with the progress of civilization man has multiplied his wants. Today, he has hundreds of wants and keeps on developing new wants. It may be said that in modern times man spends almost all his time (right from getting out of his

bed in the morning till he retires to bed at night) in endless efforts to satisfy his ever-increasing wants. There are not many in this world today who like the Buddha, Gandhi or the Indian Sanyasin abjures wants except those to keep body and soul together. Perhaps, it was this fewness of their wants that enabled our forbears to enjoy robust health, long span of life, mental peace and contentment. Today, the picture is very different. In the modern world whichever society has multiplied its wants almost infinitely and expends all its resources, energies and time in endeavouring to satisfy those excessive wants that society is taken to be the most advanced society. For example, the United States, Europe and Japan have now attained such an advanced stage of economic development. In these countries wants, production and productivity have shown a steady increase and the standard of living of the people has also gone up.

Needs, wants and desires are at the base of all economic activity. They keep on multiplying and give rise to new productive endeavours. If one want is satisfied a new want appears; besides, the same wants keep recurring. As a result of this, man is faced with the all-important economic problem of choice between wants. As wants are many and increasing, and resources to satisfy these wants are limited in supply or scarce in relation to demand, man has necessarily to decide which wants to forego and which to satisfy. Hence, Lionel Robbins rightly claimed that the essence of economics is scarcity and choice.

All production in the end is to satisfy wants of consumers. The aim of all economic planning is therefore to bring about an increase in the level of consumption by the people in other words, to raise the standard of living in the present as well as in the future. Those societies which have low standards of consumption would continue to be poor as production is also likely to be low in these societies. In these societies people will not be in a position to enjoy comforts and luxuries as they will have to fight for their survival. They will have to be content with the satisfaction of their basic wants for food, clothing and housing. They may not have the necessary

accumulation or stock of productive capital and resources to raise their production level. Such capital stock and resources will be required to be built up if they have to achieve economic growth. Economic growth or increase in the amounts of goods and services produced will alone enable people to consume more goods and services. If consumption levels go up, man's economic welfare or material welfare also goes up. Therefore, in general, the measure of economic welfare is the level of consumption enjoyed. This is why when economists talk of the divisions of economics they give priority to consumption and place consumption as the first part followed by Production, Exchange (Price determination or Value), Distribution of income, Money, Banking and International Trade and Public Finance. The beginning of economics is the scarcity of resources. Wherever and whenever scarcity conditions appear they give rise to an economic problem. Natural and artificial resources which are useful in the satisfaction of wants are available in limited quantities only. Hence, it is not possible to satisfy all our wants with these limited resources. That is why we have to arrange our wants according to the priority attached to them and then choose wants only which can be satisfied with available resources. Such a choice of social wants are decided on the basis of maximum welfare of majority voting by the consumers. These decisions regarding the utilisation of resources for satisfying chosen wants are normally made by the state in socialist countries; but in capitalist countries these decisions are made in the market by the consumers and producers. The economist is, therefore, concerned with questions like: What resources are available to satisfy which wants? How these resources are capable of alternative uses? How different wants compete for the use of such resources? What are the implications or the pros and cons of utilising a particular resource to satisfy a particular want rather than another. The economist is considered competent and has the responsibility to throw light and offer his advice on matters like these. But the responsibility of choosing particular wants for satisfaction is that of the Government or the market and not that of the economist. Even so, it is the economist's right

to point out the advantages and disadvantages of Government's decisions and choices in the field of economic activities. He can even criticize the actions of the government on the basis of his unbiased analysis and evaluation of government's decisions and policies. Indeed, it is the duty of the economist not to shirk responsibility in discharging this function. Such a role of the economist is recognised and applauded throughout the world. No one else can undertake this function, no one else is considered competent to perform this task.

In the western countries which are economically advanced, they respect this right of the economist and seek the economist's advice. The governments of these countries have set up in some form or other an economists' council or advisory body to advise the government in the matter of making the economic policies of the government. For instance, in the U.S.A. the President has the benefit of economic advice from the President's Council of economic advisers. We may say that an economic adviser to the President of a country is as essential as a security adviser. These economic advisers offer suggestions, recommend policies and tender advice on how the government can tackle the dangerous economic problems of inflation, unemployment, scarcities of goods, inequalities of wealth and income, trade cycles, etc.

One who is not knowledgeable in economics cannot think clearly about the nature of the economic problems faced by his country and their solutions. Barbara Wooton has aptly remarked that anyone to be a citizen of his or her country in the real sense of the term must be to some degree an economist. One who is ignorant of economics will be confused and is likely to commit blunders in making decisions in economic affairs. It is like a deaf person trying to enjoy a symphony.

The government leaders in every country are called upon from time to time to make important decisions in economic matters and make economic policies for the governance of the country. Therefore, it is necessary for such leaders to possess atleast a minimum knowledge of and familiarity with

economic matters so as to understand, appreciate and digest the economic information and advice tendered to them by economists. In other words, they should atleast be intelligent consumers of economic advice and information if not themselves competent economists. Let us see an interesting illustration of the need for political leaders to acquire a familiarity with economic problems and their solutions. Winston Churchill was probably the greatest leader of the Allied countries during the second world war, and was well-known as a gifted writer and orator. But all his life he was a baby as far as economics was concerned. When he was Chancellor of the Exchequer (Finance Minister) in Great Britain during the post First-World War years, he fixed the exchange value of the British pound sterling in 1925 at an artificially high rate against the warning of economists and experts. The result was that Britain had to suffer for many years on account of his false step by loss of exports and rise in imports due to this over valuation of the pound. Hence, the need for political leaders and Ministers of the government to have a working knowledge of economic matters as they must be constantly making important decisions which involve economic analysis.

How far do government leaders in our country take advice from and hold consultations with economists and experts in economic matters when making economic policy decisions? Is there a high level council of economic advisers to the government? You have to get to know of these in course of time.

**Definitions of Economics**

Every science has its own definition. Philosophy, physics, chemistry and other very old disciplines have well-defined scope for their respective enquiries and therefore have clear cut definitions. But economics as a discipline and science is only about 200 years old. It is a young science and has to grow in the future. It is growing fast now and hence its scope is continually changing. Therefore, its nature and scope have been defined differently at different times by different econo-

mists. It is yet to acquire a single generally-accepted definition. Besides, economics is like a cocktail. It is a mixture of philosophy, psychology, history, mathematics, commonsense and speculation, like a mixture of many juices. It has the nature of many different sciences, is somewhat technical, is abstract in its concepts, and has a large number of theories. It is this complex nature of economics that gives rise to differences between economists about the same problems. This is why it is said that if there are four economists there would be five opinions. Economics, in this respect, can be compared only with medicine. Thus economics has many different definitions due to the many different interpretations of economic problems. This made economist J.M. Keynes to remark that economics has nearly strangled itself with its conflicting definitions.

Inspite of the varied definitions given to economics, if you have a look at a few of them you will be able to have a good understanding of the nature and scope of economics. Here are a select few of the definitions of economics :

| | | |
|---|---|---|
| 1. | Adam Smith (in terms of wealth) | "An inquiry into the nature and causes of the wealth of Nations". |
| 2. | J. S. Mill (in terms of production and distribution of wealth) | "The practical science of the production and distribution of wealth" |
| 3. | Davenport (in terms of price) | "The science that treats phenomena from the stand-point of price". |
| 4. | Marshall (in terms of man and material — requisites of well living) | "A study of mankind in the ordinary business of life". It "examines that part of individual and social action connected with the attainment of the material requisites of well-being. ...It is on the one side a study of wealth; on the more important, a part of the study of man." |

| | |
|---|---|
| 5. Modern definition by Robbins (in terms of scarcity and choice) | "The Science which studies human behaviour as a relationship between ends and scarce means which have alternative uses". |

**A general definition**: Economists today agree on the following general definition of economics. This has been put together by Samuelson in his 'Economics' book.

'Economics is the study of how men and society end up choosing, with or without the use of money, to employ scarce productive resources, which could have alternative uses, to produce various commodities and distribute them for consumption, now or in the future, among various people and groups in society.'

An example may be helpful to illustrate this definition: Suppose a society wishes to produce rice, meat, cotton textiles, musical instruments, roads, bomber planes and pleasure yachts. To produce these goods, it has some land, labour, machinery and equipment and technology available in the country. But these factors and inputs are not available in unlimited quantities. As they are limited in supply, they are scarce in relation to the demand for them. All the producers of different goods want them and hence there is competition to obtain the inputs. This forces the community to chose between various wants and the uses of available resources. Not all the goods can be produced, nor in desired quantities due to this limitation of inputs. Therefore the available factors of production or inputs have to be allocated among the competing lines of production. Such an allocation presupposes choice among the uses to which factors can be put; in other words, how much of each good is to be produced and how to distribute these goods among the different classes of people are questions which call for decisions. Economics studies how a society makes these decisions (choices).

## BASIC CONCEPTS IN ECONOMICS AND THEIR MEANING

### Scarcity

To the economist almost all things are scarce, since by 'scarce' he means, simply, limited in supply. In other words, by scarcity is meant shortage relative to demand.

Any one who looks at the available goods and services in the world in relation to demand will be impressed by the scarcity of these (this is of course not due to a defect in our vision!) Except the air that we breathe (but fresh air may become scarce in industrial cities due to pollution), the waters of the oceans, sun-light and the sands on the beach which seem to be unlimited at present, almost all other goods available to man are limited in supply. Even fresh air and sea water are getting increasingly polluted due to the poisonous wastes and fumes discharged by factories and transport vehicles in this age of industrialisation and multiplication of transport vehicles.

From food to clothes, soap to ships, baby food to buildings, everything seems to be scarce. Even enjoyable literature, good music and dance, fine pieces of art are limited in supply. That is why we find a rush to theatres, libraries, saloons and exhibitions which offer these. That is why society charges a high price for these scarce goods and services. If there is no scarcity of resources society could make the supply of milk, cakes and creams free of cost; milk and music, silks and satins, cycles and cars, film and art could be offered free to everyone in society. We may say that scarcity is the 'Nandi' that prevents society from enjoying the bliss of free supply of all useful goods and services.

### Choice

Man's wants, are many — from pins to pianos, garments to games, bread to bacon, soaps to satins, baby-sitters to ballerinas cars to cargo-ships, yale to yachts almost everything which satisfies and delights him, pleases and pampers him.

Since wants are many and the means for satisfying them are limited, one has to choose which wants to satisfy first and

which to postpone or leave unsatisfied. In other words, as people cannot have all their wants satisfied, they must make a choice. Choice thus becomes inevitable and this is the essence of economics.

Take, for instance, the making of cars which requires steel. If all the available steel in the country is used for making only cars, the supply of cars will be plenty and probably could be sold to people at a throw-a-way price (Rs. 1000 a car!). But the same steel is wanted also to produce ships and steel pipes, aeroplanes and tanks, all kinds of machinery and equipment, factories and workshops, bridges and houses, schools and stadiums, museums and theatres. Therefore, whatever steel is available has to be distributed among these many and varied uses. That is why, due to the competing uses of steel, the demand for it becomes greater than its supply and its price shoots up. Whoever is willing to pay the higher price will alone be able to get the steel. The result is that cars cannot be supplied free but only at very high prices.

Similar is the case with regard to the supply of milk free to children. It is desirable to supply free milk to all children in a society. But this becomes again an economic problem of scarcity and choice. If all the available milk is to be diverted to children, it could be supplied free to each and every child. Unfortunately this cannot be. The reason is that milk is demanded by many other consumer groups too; coffee-addicts, curd-lovers and ice-cream crazy adults are willing to pay any price to get milk for their respective uses. Hence, the demand for milk for all uses is many times more than the available supply. The result is a rise in the price of milk. Poor parents will, therefore not be able to afford to buy milk at this high price for their children. It is ultimately the price of milk in the market which determines for what uses it will be supplied or allocated. The market forces work like natural forces and do not distinguish between different groups of people, rich or poor, good or bad. Unless Government comes forward to buy milk at the market price and supply them to

deserving groups like children of poor parents at a low price or free of cost (subsidized supply) they will be left without milk.

**Wealth**

The familiar proverb is that this world belongs to those who have material-wealth and the other world belongs to those who are compassionate. Economics deals with the material-wealth which is essential for a good life (well-being of the people) in this world. It examines how people produce wealth, how wealth is distributed among those who helped to produce it and how wealth is consumed by those who receive it.

The ordinary man thinks that wealth consists of only gold and precious stones, house and land property or money-holdings. But wealth in Economics refers to all those goods and services which have the following characteristics:

(1) utility (2) value-in-exchange (3) scarcity (4) transferability.

On this basis, the following are all wealth in economics: The food that we eat, the clothes we wear, our housing accommodation, transport vehicles, factories, all instruments of production, raw materials, finished products, entertainment services, the services of doctors and nurses, the services of musicians and dancers, teacher's services, lawyer's services, typist's services, janitor's services, the gardener's services, etc.

But no commodity can become wealth simply because it has utility. For example, drinking water which has great utility for us all is not considered wealth in economics. The reason for this is that unlimited supply of water is available to us and there is therefore no scarcity of it. On the other hand, drinking water will become wealth in the Sahara desert where it is highly scarce. (One has to buy water by paying a price for it in such places.) Contrary is the case with diamonds which do not have such high utility for us. Though diamonds are not as essential as water for our life, diamonds command a high price in the market because their supply is scarce (South Africa

having almost a monopoly in the production and supply of diamonds) in relation to demand.

Wealth can be divided into many categories such as National wealth, Community or social wealth and private wealth.

National wealth includes the wealth of its citizens, the natural resources including its climate, the geographical features and qualities of the people. Social wealth refers to the socially-owned wealth like roads, museums, public buildings, harbours which are maintained by society for catering to its public welfare. Private wealth denotes wealth owned by private individuals or by associations of individuals, private institutions, companies, games clubs, private charitable trusts, etc.

Human skills are also a kind of wealth. The production skills of an engineer, the surgical skill of a surgeon, the beautiful voice of a singer, the dexterity of a violinist's finger, the physical strength of a manual worker are all types of human skills which may be called personal wealth. But as these skills cannot be transferred from one person to another, economists do not include these human skills in wealth proper. They are however classified as personal wealth. When personal skills are used to produce services which can be sold for a price (for e.g., services of the engineer, doctor, singer or manual worker which command a price in the market) these services become wealth.

Money supply is part of the nation's wealth. It is not only an instrument of exchange; but it also enables society's production power to be increased; hence money is considered wealth in economics.

Wealth not only includes the material goods and belongings like food, clothes, land, house, furniture, books, jewellery etc., but also invisible goods like the good-will of a business firm, patents, trade-marks, copyrights of books etc.

What about titles to property like house, land, building, shares of companies? These are not wealth as they are only

titles to wealth. Hence, they may be called representative wealth.

### Economic Welfare

There was in early times a controversy between learned scholars about wealth and welfare arising from wealth, i.e., material welfare. There were some who said that economics is a dismal science as it taught men how to accumulate money. The great English litterateur Carlyle and the great moralist John Ruskin ridiculed Economics for its emphasis on material wealth (mammon worship!). But this criticism was unfair and unfortunate. It was due to the ignorance of these great men about the objectives of economics, namely, improving the economic welfare of the people through the optimum utilisation of available resources. Indeed, there is no conflict between economics and the higher objectives of life and the moral values of humanity. Economics does not contradict these human and moral objectives and ideals of life; it simply does not deal with them, its sphere is different, namely, economic welfare of the people. It concerns itself with how a society could increase its welfare which flows from wealth, how this welfare could be widely distributed and the like. Therefore, the condemnation of economics by the literary scholars is not justified. It is like blaming an axe for not being a chisel.

Ruskin gave his own ethical definition of wealth : 'Wealth is nothing but life; It is only in life that the power of love, power of happiness, and power of appreciation are realised. In whichever country the great majority of the people are highly cultured and enjoy great happiness, that country is a wealthy country' according to Ruskin. We may accept this only as an idealistic concept of life and wealth by Ruskin.

But Ruskin could not claim that his view of wealth in the ideal sense is the only correct view, and that the view of economists on a different plane namely, material plane is wrong. Economists do not speak of wealth in the abstract and ideal sense, but in the practical sense in which the common

people understand it. Economics is chiefly concerned with material wealth and welfare. In economics only those things are wealth which have an exchange value measurable by price in the market. One cannot live in this world without material wealth. Hence, there is nothing wrong in talking about and analyzing material wealth. On the other hand, Economics does not attempt to convert men into heartless ghosts, who seek wealth for its own sake, miserly men who worship money. But it recognises the need to earn money and spend it if people are to enjoy goods which yield material welfare. If greater material welfare is desired, a greater amount of goods or wealth has to be produced. At the same time economics does not stand in the way of religion and literature teaching people how they should use wealth to do good to others, to foster charity, and to inspire good conduct. In fact, Economics has no right to interfere in such spheres of life.

It is true that certain types of wealth may adversely affect material welfare. It is equally true that certain goods which are not considered wealth in economics may really contribute to the material welfare of people. Certain goods, though considered as wealth in economics, could cause ill-health and ill-fare to people. Such goods are intoxicating substances, alcoholic drinks, fatty food, matinee shows and the like. Yet economics examines their production and consumption because the concern of economics is with wants and their satisfaction, scarcity and choice and not with ethics or moral sermons. Economists very well realise the importance of love, kindness, friendship, high ideals, moral conduct, meditation etc. for human life to be elevated, dignified, peaceful and happy. But there are other disciplines like philosophy, literature, religion etc. to concern themselves with these aspects of life. It is therefore neither appropriate nor necessary for economics to make these aspects its concern. It is, on the other hand, concerned primarily with how man behaves in the practical world by way of earning an income and spending it. There is no pretence in the role of economics as a positive science which studies what is, rather than what ought to be!

When economics examines the material welfare of man, it has to find out the actual benefits enjoyed by him through consumption of goods available to him. Though increase in wealth may be necessary to increase economic welfare, the object of economics is not merely to accumulate wealth (not the object of Midas who wants money and wealth for their own sake). Economics has the object of increasing the economic welfare of man through the best use of wealth. Wealth is the means of satisfying the wants of man and helping him to enjoy material welfare. In fact, the real source of all the material or economic welfare that a society enjoys lies in the total quantity and quality of wealth it possesses. If wealth production diminishes, economic welfare also diminishes; on the other hand, if wealth production increases, economic welfare also increases, other things remaining the same.

There is another factor which can affect economic welfare, viz., the distribution of wealth in society. If wealth is evenly distributed among all the members of a given society, then the economic welfare of its people is likely to be greater than if wealth is unevenly distributed (concentrated in the hands of the few. If wealth is concentrated in the hands of a few, the masses will be poor and the level of economic welfare in the community is bound to be low.

Another important aspect of economic welfare also needs to be stressed. The method adopted for wealth production and the production environment do affect the welfare of society. Do the workers engaged in production have to work in unhealthy surroundings? Is the working day too long? Have they to do very hard work subjecting themselves to much physical discomfort or pain? If so, these factors will reduce the economic welfare of the workers. Society will have to decide whether production should be carried on through such sacrifice of the workers' bodily health and comfort. The welfare of the community will be certainly reduced to the extent of this sacrifice.

Similarly, the attempt to keep the wages deliberately low and increase production will not contribute to economic

welfare. This is why developed countries and developing countries like India have come forward to fix legal minimum wages in the sweated industries like agriculture, in small industries and cottage industries (e.g. beedi-making, match-making, leather-tanning, etc.).

Yet another measure undertaken by governments so as to bring about an increase in the general economic welfare of the community is the levy and collection of progressive taxes. Governments now-a-days impose income-taxes at steep rates on the rich and they spend all this revenue on the weaker sections of society so as improve the welfare of the masses. Subsidised housing schemes, educational concessions, health care, play-grounds, public parks, libraries, museums, etc. are increasingly provided for the benefit of the poor masses.

Government can help protect the economic welfare of the community if the ups and downs in the value of money are also prevented. The working classes have to eke out their livelihood with whatever daily wages they get. If the prices of the basic necessaries they buy go up, they will not be able to buy as much as before and their welfare will be definitely reduced. This realisation has made governments aware of the need to protect the poor masses from the erosion in the value of money. For example, if the value of the rupee were to fall in India the richer sections of Indians will not be much affected, but the poorer sections will be very much hit. Low-income groups, daily-wage earners, the unemployed, the poor and the needy will be hit hard by the fall in the value of money. It is clear then that Government can, through controlling price changes, help to maintain or even increase the welfare of the masses.

Today the per-capita income (average income per head) in India is around Rs. 1200 per annum at current prices. This is a very low income when compared with the per-capita income of people in countries like the United States of America, Canada, Germany, Sweden, France, Japan and Singapore where it ranges from Rs. 5000 to Rs. 30,000. Per-capita income is a measure of the country's production potential and economic

power. We can therefore, see how the economy of India has a long way to go before it can develop economic strength. Its people are indeed poor in comparison with developed countries. (India is a country of rich resources, but its people continue to be poor.)

**Poverty**

Poverty in economics means lack of wealth. If a person is poor, it means he has only a little wealth or no wealth. Similarly, a country is said to be poor if it possesses only a little wealth. India, Bangaladesh, Burma and many African countries are poor in this sense. What is the reason for this poor condition of many nations. We have seen that it is the quantity of goods and services produced in the country that constitutes its wealth. If this quantity is less in a country that country is poor. If this quantity is large in a country that country is a wealthy country. It is also growing; it is said to be experiencing economic growth. Recent economic history shows that only these countries which achieve an annual increase (or growth) in their production to the extent of 5 to 10 per cent could enjoy continued growth in their wealth, i. e. economic growth.

**Utility**

Suppose a consumer (one who buys and consumes a good) buys and consumes a biscuit or a fruit. He gets out of this consumption a certain amount of satisfaction. The amount of satisfaction which is obtained by consuming a good at a certain point of time is called its utility in economics. Similarly, almost all goods possess this want-satisfying power or utility. Reading a novel or poem or a newspaper, or an evening walk or a visit to a picture-house or a journey by car, train or boat yields us utility. Everyday we enjoy utilities from the various goods we consume right from food and clothing to bus journey or a foot-ball match.

It should, however, be pointed out here that utility in economics has no connotation of good or bad, moral or immoral. This is because in economics we are concerned only

with wants of people as they are and not about their ethical justification. Wants may be desirable or not; but so long as people are willing to pay for their satisfaction and allocate resources for the purpose, economists have to concern themselves with them. The desirability or otherwise of wants have to be determined by government and the people themselves. If, for example, people want alcoholic drinks and the government permits these drinks, economists will have no say in the matter except to carry out an analysis of the pros and cons of this step in economic terms or the cost and benefit. The economist will set about analysing the effects on the economy of the country of the production, sale and consumption of liquor. How are the revenues and expenditures of the government affected by this liberalisation of alcoholic drinks? What are the economic advantages and disadvantages to society arising from the above activities? Are there ways of minimising the losses and maximising the gains to society? are all questions to be answered by economists. Once they have carried out this study, it is for the government to accept their advice or not. We have already noted how in the United States of America there is a Council of Economic Advisers to the President. This council advises the President on all important questions and policies pertaining to the management of economic affairs of the country. It presents to the President the pros and cons of all economic proposals before the President for his decision; We do not yet have one such council in India to advise the government on all such important economic issues.

**Demand**

Demand in economics is not the same thing as desire. In economics demand means effective demand, that is, desire backed by purchasing power. In other words, the consumer who is willing to buy a commodity at a particular price is alone said to have a demand for it at that price. Even when buyers are willing to buy a commodity, how much they will buy depends upon the price. Some may refuse to buy at a higher price and rush to buy more when the price falls. Hence, demand changes according to changes in price.

**Supply**

Those who produce things for sale bring them to the market. There may be many sellers of the same commodity. How much each of them will be selling depends upon the price prevailing in the market. If the price is high, they will offer a larger quantity for sale. If the price is low and not attractive enough, they will offer to sell only less. The amount of the commodity which a seller is willing to sell at a particular price is known as his supply at that price. Though he may have in his stock a larger quantity of the commodity he may not supply the whole of his stock at a particular price. Hence, there is a difference between the stock of a commodity and its supply at any particular time.

The market supply refers to the total quantity of a commodity which all the different sellers put together offer to sell at a particular price in the market.

**Land**

In economics land does not refer to the land surface only which is cultivated with crops. It has a wider meaning and it includes cultivable land, rivers and forests, mines and mountains, the seas and all other natural resources, even air and sunshine. Resources which are artificially produced by man will not form part of land.

**Labour**

The word labour in economics may be used to refer to either of two aspects. In one sense it may be used to denote the number of men, women and young people of working age in a country's population. In other words, it is the labour force in the country (excluding the aged, the invalid and children below a certain age). A second sense is the total number of labour-hours or man-hours of work annually turned out by the labour force of the country. For example, if a labourer is willing to put in 8 hours work daily then we have to take that he supplies labour amounting to 8 man-hours. If we take the country as a whole all those in the labour force will be together supplying

many millions of man-hours per year in the aggregate. At the same time, when labourers go on strike or the employers declare a lock-out, many thousands of man-hours may be lost to the country. As a result of loss of labour-hours there will be a loss of production. It is also likely that the commodity whose production has been lost will rise in price in the market due to its scarce supply. The consumers will be put to trouble on account of limited supply and price rise. It is easy to understand then that only those countries in which man-hours are not lost frequently due to strikes and lock-outs would be able to maintain and improve their economic progress and the standard of living of their people steadily and quickly. For instance, Germany and Japan have achieved great success in recent decades in economic progress and growth by minimising, if not avoiding, the loss of man-hours in industry and agriculture. Are we not to achieve similar success in India!

**Capital**

Capital in economics does not refer to money or money capital alone. It refers to all those instruments of production which are artificially produced by man. All tools, machinery, plant and equipment, raw materials, factories, transport equipment, roads, harbours, bridges and dams are all capital. Capital goods like these are not meant for direct consumption; they help in the further production of goods; that is why they are also known as producer goods or investment goods.

It is no doubt true that money too serves as capital when it is used to buy raw-materials for production or to pay wages of labour or to hold stocks of goods (inventories). A producer has to have money for investment in these processes. When money is so employed it is called money-capital, or circulating capital.

It is clear now that capital goods help in the production of more and more consumer goods. If, for example, we wish to have more cakes and biscuits, shirts and shoes, cycles and cars, fans and radios we should first create machines and equipment, work-shops and factories with the help of which alone we can produce the required consumer goods. In other words,

consumer goods in large quantities cannot be produced without increasing the availability of capital goods. Therefore, only those countries which possess capital goods in plenty will be able to produce consumer goods in plenty. Only in such countries the consumption level of the people or the standard of living of the people can be continually raised. Alternatively, the gross national product (GNP) or the National income of the country will be high only in countries whose production of goods and services is at a high level. The per capita income (average income per head) in a country is also determined by the level of its production. This shows the important role of capital goods in a country's economic growth (growth in national income).

Every country has a desire to accumulate capital as it enables it to make economic progress through the production of more goods (which result in more and more income and employment). We can conclude, therefore, that capital accumulation or capital formation is a basic requirement for all economic progress. Countries of Western-Europe, the United States, Soviet Russia and Japan are today in the forefront of developed countries on account of the large quantity of capital that they have accumulated or their high rate of capital formation. In these countries, almost a quarter of the national income is saved annually and invested in the production of capital goods. This is how they have been able to increase their production of goods and services by 5 to 10 per cent annually. This causes the incomes of people to increase in these countries. Hence, the per capita income of these countries is many times higher than that of India.

We have to learn a lesson from the experience of these countries. What is it? In economics there are some unpleasant truths. If we understand them and observe them in practice, we would be able to attain economic development. If we neglect these truths and do things as we like, we will be faced with difficulties and obstacles. However poor a community may be, there is a way to bring about a reduction in poverty and increased prosperity in such a community. Even a poor country should not spend all its income on consumption alone. It must

be prepared to sacrifice at least a part of its consumption for the sake of saving and capital formation. If it undertakes this sacrifice in the present and invests its saving in the production of capital goods, it can multiply its consumer goods production in the future manyfold. If today the United States of America appears to be the wealthiest country in the world, the secret of it lies in the sacrifices in consumption and the drive for saving and investment for the future which the past generations of Americans were willing to undertake. The 19th century England could become the mother of the industrial revolution and the workshop of the world mainly because of the thrifty habits and prudent savings of the people of the Victorian age. It is to be realised that economic growth and prosperity cannot be brought about by miracles; it is a crop which has to be nurtured by sacrifices and hard work (blood and sweat !)—just like political freedom and political progress.

**Factors of production or Agents of production**

A few factors of production will be needed to produce any good. No production will be possible without these agents of production.

Economists speak of the four basic factors of production. These factors are required for the production of almost all kinds of goods. They are land, labour, capital and organisation (entrepreneurship). Besides these, other factors of production or inputs will also be needed to produce certain types of goods. For example, an increase in agricultural output could be brought about by adopting modern methods and techniques of crop production. Such modern methods will require the use of inputs (factors) like chemical fertilisers, improved seeds, power sprayers, etc. Similarly, manufacturing industries will require inputs like new technologies, research and development for better production and improved productivity. The training of labour in new production techniques and the training of managers in production management, sales management and financial management, industrial relations etc. are also important inputs for modern industry. Any country which wishes to make rapid advancement in agricultural and industrial production will have to discover

newer and newer inputs and employ them in production. An improvement in productivity (the ratio of output to input in production) can be achieved through the utilisation of newer and newer inputs.

**Margin**

One of the very important concepts (and a technical term) used in economics is the "margin". When the amount produced or the amount sold is increased by one more unit or when the number of labourers employed is increased by one more unit, this additional unit or last unit is known as the marginal unit. Similarly, when these are decreased or reduced by one unit, this last unit to be reduced is called the marginal unit. In this way the last labourer to be employed, the last acre of land to be brought under cultivation, the last unit of capital to be invested in production is known as the marginal labourer, the marginal land and the marginal capital, respectively. Similarly the last unit of organisation or entrepreneurship to be added or reduced is known as the marginal entrepreneur. The output produced by the man to be employed is known as the marginal output. In the same way, the utility enjoyed by the consumer from the last unit of the commodity consumed is called the marginal utility. The money income or revenue obtained by selling the last unit of a commodity is known as marginal revenue. The money expenses incurred on the production of the last unit of a commodity is similarly known as marginal cost. Marginal supply is the last unit to be supplied; marginal demand is the last unit to be demanded. These are all important concepts frequently used in economics.

**Saving**

An individual ordinarily spends a major portion of his income in buying consumer goods and services to satisfy his immediate wants. The remainder of his income which is not spent on current consumption is put aside for the satisfaction of future wants. It may be for the time being kept under the mattress at home or deposited in a bank for safe custody. It is known as his savings. Saving in economics, therefore, means that part of a person's income which is not consumed or spent

on current consumption. A saver is one who does not consume the whole of his income but saves a part of it.

Every society needs saving. A society can achieve economic growth or progress in the future only through increasing its capacity for future production. For this, that society should abstain from consuming the whole of its current income or output and invest in capital equipment that part of its income or output thus saved. By investing its saving in instruments of production or capital goods, it can ensure increased production capacity in the future. Therefore, only a society which is willing to make sacrifices in current consumption through saving will be able to add to its production capacity continually and increase its output of consumption goods in the future. Such a society will be in a position to continually improve the standard of living of its people in the future (like the developed countries of the west).

**Investment**

If the income saved by a person is kept as idle cash (kept under the pillow, or buried in the earth) it amounts to hoarding cash (simply called hoarding). In all advanced societies savers do not hoard their savings; instead they will either deposit their savings in the banks, which the banks can lend to producers as loans or advances; or the savers themselves will utilise their savings for investment in own business and earn more profits. Savers may also directly lend their savings to other investors for the sake of interest or dividend income through buying debentures and shares in business companies. Some times savings may also be lent to government by purchasing government bonds. Thus savings will ultimately take the form of investment. Investment, therefore, refers to savings being put to productive use, and serving as capital for further production of goods. Savings are needed to build new machines and factories, or to produce raw-materials (like cotton, sugarcane, iron or chemicals) required for producing finished goods, or to hold stocks of goods (inventories).

We can easily see from the above that savings which are merely hoarded without being put into investment of some

kind will not be productive or useful to the community. It is better that no savings are made rather than keep the savings as idle hoarding. Saving hoarded does not give any benefit to society; on the contrary it reduces expenditure and money circulation, thereby reducing the incomes of people in gereral (the income stream shrinks due to saving not put to use).

An interesting question may be raised here. That is, who does good to society? Is it the niggardly spender? (who does not spend money) or is it the spend thrift (who spends money extravagantly)? It may seem paradoxical to answer that the spendthrift indeed brings more benefits to society than the miggardly spender! As we have explained above, one who keeps money hoarded withdraws money from circulation and thereby reduces purchasing and selling transactions. On the other hand, the spend-thrift by spending lavishly increases the market transactions (buying and selling of goods) and thereby puts more and more incomes into the hands of those from whom he buys goods—the vegetable and milk vendors, the baker, butcher, tailor and the cobbler, the musician and showman get increased incomes due to the spend-thrift's lavish expenditure.

# 4. ECONOMIC SYSTEMS

What are the main types of economic system prevailing in different countries of the world? We have briefly referred to them in the previous chapter. Let us learn more about them in the present chapter.

We can classify the prevailing economic systems into three categories, namely,

1. Capitalist economic system (Capitalism)
2. Socialist economic system (Socialism)
3. Mixed economic system (Mixed economy)

Let us first examine the capitalist economic system. This system has been in vogue for a long time—a few hundred years. Scholars and thinkers are of the view that in the early stages of man's life on earth, there was no private property or individual right. Land that was freely available in nature was held in common. But with the passage of time and the growth of population, land and other natural resources like water, forests and mines became the private property of the few who were aggressive and strong enough to appropriate them to themselves. This heralded the dawn of capitalism in which the right to private property became the pivot of economic system. The production and sale of goods came to be increasingly undertaken by private entrepreneurs for profit.

Until the beginning of the 20th century, capitalism held sway over the world. It was only after 1917 when the socialist revolution in Soviet Russia took place that socialism as an economic system took shape in that country and spread to a few other countries. But even today it is capitalism of some sort which prevails in most countries of the world. All the same, capitalism seems to be slowly heading towards a crash on account of its inherent weaknesses and disadvantages. It is no doubt in trouble in several countries of the world. That is why

many economists (especially J. M. Keynes) and political leaders like Franklin D. Roosevelt have tried in recent decades to give capitalism a new lease of life (atleast to put it in the oxygen tent) by remedying some of its serious defects.

It was the 20th century's greatest economist J. M. Keynes who gave new ideas to revive the dying capitalism in his book, 'General theory of Employment, Interest and Money' published in 1936. You will know more about it later.

The basic features of capitalism are the following:

(a) Right of private property

(b) Right of inheritance to property

(c) Freedom of enterprise

(d) Non-interference by government in the economic activities of the individual (Laissez-faire or Hands-off policy)

Let us examine now, the advantages of capitalism in the light of its features.

1. Under capitalism, the individual enjoys a lot of freedom and he is free to shape his life in any manner he likes without outside interference. Freedom of thought and action, freedom of profession and association, and religious freedom are all available to him. He is free to earn, spend and accumulate wealth, and pass on his wealth to his sons and daughters.

2. The free market is the first advantage of the capitalist system; that is why it is otherwise known as the free-market economy. The market forces of demand, supply and price are allowed to operate in the market without any outside control or interference. Hence, prices and supplies of goods change whenever changes take place in the demand for various goods. The equilibrium in the market is brought about by the free action of the forces of demand and supply. The allocation of resources for various uses is made automatically by the market forces themselves without government interference. Suppliers adjust their supplies according to the changes in demand and

price. In this way on almost self-adjusting system is in operation.

3. In the capitalist system, production of goods is undertaken for profit. More goods will be produced if thereby more profits can be earned. Thus profit acts as the incentive for all economic activities under capitalism. When the price of a good goes up, more of it will be produced as it will fetch more profits to the producer. If, on the other hand, its price goes down less of it will be produced as the profit to be earned will be less. As prices and profits automatically bring about suitable changes in production to meet changing demand, the economy under capitalism functions smoothly without a need for outside control.

Having seen the advantages of capitalism, let us also have a look at the disadvantages of the system. Economists have pointed out the following defects which are inherent in the capitalist system :

1. Though under capitalism the individual has many freedoms and there is absence of government interference in economic activities, these prove to be disadvantageous to the masses in general. As wealth is concentrated in the hands of the rich who are few and the majority are poor under capitalism, the above freedoms enable only the rich to enjoy the benefits of production. The poor do not have the purchasing power to buy goods and hence the producers who are often profit minded will not produce goods which will satisfy the wants of the poor. They will concentrate on producing only those goods which the rich demand as the rich are prepared to pay high prices which will give increased profits to the producers. Thus production will be profit-oriented and not want-oriented. Luxury goods like silks and satins, scents and jewellery, almonds and cakes will be produced in plenty to satisfy the whims and fancies of the wealthy and the aristocratic. Cottons, brass, glass-bangles, paper-flowers, bread and jam and such other low-priced products required to meat the wants of the poor will be in short-supply as they do not yield high profits to producers. Hence, an important

accusation against capitalism is the neglect of the wants of the poor who form the majority.

2. A second disadvantage in capitatism is that the life and welfare of the people are subject to the cruel and blind working of the free market forces like demand, supply and price. As these forces work heartlessly and mechanically, they do not distinguish the rich and the poor, moral and immoral, deserving and undeserving. Only the buyer who can afford to and is willing to buy the good at the price ruling in the market will get it; not those who badly need it, or deserve to get it but are unable to pay its price. For example, cow's milk which is a dire necessity for the poor children will not be made available to them unless the mothers of such needy children could pay a price for it which is, atleast equal to the price offered for it by the manufacturers of milk-sweets. In fact, human life and dignity become the playthings of market forces under capitalism. Producers and sellers of goods dismiss the sufferings of the poor on account of this market dispensation as due to the fate of the poor.

3. Another curse of capitalism is the evil of unemployment, hunger and famine, poverty and squalor, inflation and economic fluctuations. These evils are inherent in the very nature of capitalistic institutions and become periodically acute causing human misery on a large scale. The distortions of the market, sudden fall and rise in prices, profiteering, black-marketing, smuggling and exploitation affect the fair and smooth functioning of the economy in capitalism. Whenever production is curtailed for some reason, unemployment results; whenever there is a general rise in prices due to inflation, the purchasing power of the poor is destroyed. Fluctuations in production cause business cycles, economic depression and prosperity occurring alternatively. Therefore in all capitalist societies poverty and squalor continue to exist among large sections of people. In fact many of the poor capitalist societies are caught in a vicious circle of low income, low investment and low development. The free market system has not helped them to free themselves from this vicious circle.

**Socialist system or the Centrally-planned economy**

The socialist economic system is a new development in the 20th century. In the October Socialist revolution of 1917 in Soviet Russia the Czar of Russia was overthrown and a socialist Government took power. The proletarian revolutiou put power into the hands of the working class. The capitalist institutions of old were abolished. The vested interests as well as the exploiters were uprooted. The class war between the rich and poor ended, giving place to a new economic and political system which catered to the needs and welfare of the masses. This new socialist system has taken roots not only in Russia but also in some of the East European countries like East Germany, Poland, Hungary, Czekoslavakia, Rumania and Yugoslavia; also in some African countries like Tanzania, and Libya; in the great Asian countries of China and Vietnam.

**The features of socialism**

1. The absence of the individual's right to property and the right to inheritance of property.

2. All means of production like land, forests, mines, factories, schools, harbours etc. are state-owned.

3. From each according to his ability; to each according to his need—this is the principle of the individual's contribution to production and his sharing of benefits.

4. Production is not for profit. All production of goods and services are aimed at satisfying the real needs of the masses.

5. Economic development is to be achieved through centralised planning. Leissez-faire has no place in the socialist economy.

**Advantages of the socialist system**

1. As private property is abolished, there are no classes dividing society like the rich and the poor. There is no more class war. There are neither paupers nor princes.

2. As the Government is by the working class, for the working class, of the working class, the interests of the masses are well protected and preserved. There is no more prestige, power, status or influence attached to wealth or property.

3. All members of society enjoy equal status, rights and privileges irrespective of individual talents and merits. Each one gets recognition in society according to his work, contribution and service to society. The factory manager and the ordinary labourer will enjoy equal rights and opportunities.

4. As all means of production are owned by the State, the entire productive machinery is directed to fulfilling the wants of the masses. The basic necessaries of the people receive the highest priority in production. The profit motive is absent and production is people-oriented. For example, milk supply will be made available for the manufacture of sweetmeats only after all the needs of children and pregnant mothers have been met. Silks and satins will be produced for luxury-wants only after the wants of the majority for cottons and woollens have been fulfilled; only after the need for cycle of the majority has been satisfied, will the production of cars for the few will be taken up.

5. Everyone is provided with employment and, therefore, there is no misery caused by unemployment. As everyone gets an income according to his needs, the intense competition for jobs and the rat-race for beating the others are absent. The bitterness and jealousies caused by scarcity of jobs and unequal opportunities will not be there under socialism. In contrast, under capitalism due to unfair and unequal competition corruption and exploitation, most people suffer from emotional strain and even tension; they are likely to be denied peace of mind and joy and become like machines. Under socialism, each one is given his due and hence can have peace of mind and freedom from worries. Bertrand Russell, the peerless philosopher of this century, has depicted in one of his books "Path to Happiness" the sad plight of millionaires in America who are unable to enjoy peace and happiness inspite of their wealth because of the mad rush for profits and rat-race for gains.

6. In the socialist-system the State comes forward to exercise control over the functioning of the market, through controlling the forces of supply, demand and price in the interests of the masses. The prices of basic necessaries of life like bread, butter coal, sugar, drinks, transport and the like are kept pegged at the same level for years. Such a miracle of stable prices seems to be possible only under the socialist system; in the capitalist system monkeying with prices is very common and prices of consumer goods vary almost from day to day causing extreme instability of the price level (even the price of gold being no exception !).

7. Countries where the socialist system prevails have all adopted central planning as a strategy for abolishing poverty and achieving rapid economic growth and development. The centralised planning system (Soviet Russia was the pioneer in this) involves the following: taking stock of all the available resources in the country; fixing targets of production so that the more urgent needs and wants of the people could be fulfilled within a time schedule; utilising the scarce inputs like land, machinery, factories, and trained manpower to achieve the pre-determined targets.

The rapid economic progress achieved by Soviet Russia through this method in about four decades of centralised planning enabled it almost to catch up with the advanced countries of the west which took more than a century for their achievement. Such a planned miracle surprised even the capitalist countries which themselves started copying the planning method to achieve quick results. India too followed Russia in this respect and its first Five-Year Plan was formulated in the year 1951. One of the spectacular results of Indian planning has been the achievement of widespread facilities for education from the elementary stage to the Collegiate level almost free of cost to the poor. You will probably be aware of the fact that we have in India since the 1950s a Central planning commission at Delhi fallowing which state Planning Commissions have been set up in some of the States. These Planning Commissions have been making plans and implementing them for uplifting the economic condition of our

masses and paving the way for fast economic development of the Country. Development programmes including schemes for provision of water-supply, housing, hospital facilities, irrigation for agricultare, road and rail transport, educational facilities, job training facilities, welfare of the aged, agricultural and industrial development have been put into operation through planning during the past three decades.

It is the business of economists to help formulate the plans for economic development, whereas it is the responsibility of the Government, ministers and officials (administration) to effectively implement the plans. But in capitalist societies, neither the government officials (bureaucracy) nor voluntary social organisations possess the requisite training or enthusiasm so essential to work the plans successfully. This is an important reason why plans are not as successful in capitalist societies as in socialist societies. In contrast, the infinite enthusiasm of the political cadres and the people in socialist societies ensure the success of their plans.

**Disadvantages of the socialist system**

As private property is abolished under the socialist system industry, agriculture, and trade are all under State control and centrally-planned direction. The entire machinery of production being under State direction and control, there is no place for individual initiative or production by private individuals for personal profit. Therefore, the freedom of free enterprise as well as unfettered economic activities by the individual which are the hallmark of capitalism is simply absent under socialism. Those who believe in the unfettered freedom of the individual (laissez-faire) and detest all forms of control consider this as the primary disadvantage of socialism.

However, we should remember that under socialism all are assured food, clothing and other basic necessaries of life. At the same time, a certain amount of control is exercised on the individual's actions for safeguarding society's larger interests. On the contrary, capitalism permits almost unlimited freedom to the individual but fails to ensure to everyone the essential necessaries of life—hence the division of society into the rich

and poor. Under capitalism, food and clothing and other necessaries will be available neither in sufficient quantities to the weaker sections nor at such low prices which the poor can afford. These are indeed the basic characteristics and respective disadvantages of the two systems.

Some critics are of the opinion that under the socialist system the development of fine arts will be handicapped whereas under capitalism they have a free atmosphere to flower. They say that everyone in the socialist state will have to live through earning his wages and therefore, will not have the leisure or opportunity to engage in fine arts like music, dance and drama. Under capitalism, they claim, the well-to-do classes will have lot of leisure and money to devote themselves to fine arts. This is a fallacious argument. The socialist societies have witnessed a very high level of development of fine arts in recent decades comparable to that under capitalism. In fact, socialist societies have even excelled others in certain spheres of fine arts : Russia, for example, has excelled in ballet dance; China has excelled in certain arts and games particularly in table tennis; great pieces of literature are being produced in some of the socialist societies.

It is also said that in capitalist societies the incentive of profit makes people work hard or put forth their best. This profit incentive is absent in socialist societies and hence hard work and efficiency would not be forthcoming; production and productivity will also below. But this is a wrong impression and it is based upon imaginary situations. The real situation as seen from the facts and figures of production and productivity in socialist societies disproves the above assumption. The records set up by some of the socialist states in production and productivity seem to be far more impressive than those of the capitalist states. For instance, the increase in the level of production in Soviet Russia during the inter-war period between the first and second world wars has been more impressive than that in the United States of America. This has been achieved by Russia through an appeal to the patriotic feelings and the socialist goals of the people even in the absence of the profit motive.

**Mixed Economic System (Mixed Economy)**

We have already seen the disadvantages of both the capitalist system and the socialist system. Each has something that the other does not have; each system can be considered complementary to the other system. Realising the advantages available in each of these two systems, some countries in recent decades have adopted the practical strategy of combining the best in the two systems and avoiding the extreme form of either capitalism or socialism. This new system is rightly called the Mixed Economic System or the Mixed Economy.

The newly independent nations which secured freedom after World War II were hard put to choose between capitalism and socialism as these were the only two prevailing alternative economic systems then. After looking at the relative merits and demerits of each of these systems, a number of these newly independent countries chose to go socialist. It seemed to be best suited to fulfil the aspirations and needs of their poor masses through centralised planning. But, at the same time, they found that they did not have the large amount of capital needed for investment to increase the production of goods at a fast rate. It meant the need to have machines, obtain technical know-how, etc. Such capital goods like machinery and know-how were available in plenty only with the capitalist countries. The needy new nations had therefore to turn to the former for obtaining loans of capital, importing machinery and securing the services of technical man-power. Further, most of the newly independent nations already had political, economic and cultural relationship with some of the European capitalist countries or the United States of America (either as a colony or as a cultural satellite of a capitalist country). It was, therefore, easy for these countries to foster close economic links with the capitalist countries. The capitalist countries were also too ready to extend such aid to these newly independent needy nations so as to attract them to capitalist ways of life. Also the bureaucratic traditions, capitalist institutions and the administrative organisations left behind by the imperialist countries in these former colonies were intact. These could be readily utilised, with necessary changes, for the socio-economic

administration of these societies which were almost beginning from scratch. It is no wonder then that some of these newly independent countries opted wholly neither for undiluted capitalism nor for the pure form of socialism already prevalent; but they chose to have a system midway between the two extremes, namely the mixed economic system, combining the best in both.

These countries were well aware of the defects of capitalism especially in the matter of improving the economic condition of the poor masses. They were also eager to have necessary charges made in the existing capitalistic structure in their countries so as to uplift the economy through State enterprise. They were willing, in the interests of the masses, to control the functioning of the market; also to stabilise the prices to the extent necessary to achieve their socialist objective. Their Governments were even prepared to interfere with the functioning of the private sector industries so as to regulate production to serve the interests of the masses. They were even willing to go a step further and undertake new productive enterprises directly under government auspices and thus create a public sector of industrial development. The objective of these governments was to free the masses from the exploitation of the few, namely, the profiteers and the monopolists. Hence they came forward to adopt some of the practical features of the socialist economic structure and operation, alongside of the capitalist features of their economy.

Such countries made an attempt to remove from their economic system the disadvantageous features of both capitalism and socialism. They tried to combine the advantages of both the systems and found the mixed economy to be more suitable to their needs. Thus the mixed economy came to be adopted in most of these countries. They were convinced that the rapid ecocomic growth of the country and the fulfilment of the aspirations of their peoples could be ensured only through the adoption of the central planning technique which is a special feature of all socialist countries. India today follows this socialist method of central planning for achieving rapid economic growth for its people. This mixed economy has been

adopted by many countries in Europe, Africa, Asia and Latin America. All those countries which call themselves non-aligned with either of the super-powers are today under some sort of a mixed economic system. What is really surprising is that even arch capitalist countries like the United States of America, England and France today claim to be mixed economies. This is because the governments in these countries have gradually extended their control and regulation over private industries, monopolistic and monolithic corporations in the interest of the common man. Further, the protective measures undertaken by the State in the interests of the workers and poorer classes of people in the spheres of social security, health and education through generous subsidies have also contributed to the growth of the public sector in these countries. What a big change in the earlier laissez-faire (hands-off) attitude of these capitalist countries !

**Features of the Mixed Economic System**

The following are the important features of the mixed economic system :

1. There will be in the mixed economic system a private sector and a public sector. The state will itself undertake production and distribution of goods in those areas in which the private entrepreneurs are unwilling to enter due to expectation of low profits or no profits. For example, in our own country defence industries, railways, iron and steel industry, petro-chemical industries, nuclear industry, electrical generation, heavy electrical industry, heavy-boilers industry, mining industry, telecommunication industry, road-transport, ship-building, banking industry and foreign trade have increasingly become part of the public sector. These industries constitute almost the heart and nerves of the economy of India and the Government sector is said to enjoy the commanding heights of the Indian economy. The controlling power over the Indian economy has almost passed into the hands of the Government, though the private sector is allowed to play its own role in the economy of the country. Thus India is a good example of the mixed economy and it is almost a pioneer in this mixed economic system.

2. The incentive of profit which operates successfully in increasing production under the capitalist system is not given up in the mixed economic system. This incentive helps to increase production in the mixed economy also, especially in the private sector. In these industries in which the chance of making profits is very low or nil, either the government itself undertakes production or extends subsidy to private industry to attract it to this neglected but necessary sector.

3. A very important feature of the mixed economics is the adoption of planning for economic development. These countries have realised the advantage of planning from the experience of socialist countries like Russia which have attained very rapid economic growth through planning. Undeveloped or developing countries with large masses of poor people will not be able to quickly raise their incomes and standard of living without adopting the strategy of planning to achieve this goal. Saving, investment, growth rate of income, government budget, export and import, foreign borrowing and aid all these will have to be determined in advance and a suitable plan formulated and implemented to fulfil the targets of production. Such a plan can provide for the satisfaction of the basic wants of the masses in the quickest possible time, the abolition of shortages of goods in particular sectors, and a rise in the standard of living, natioal income and per-capita income. Besides, the provision of increasing employment opportunities to the unemployed and needy, stepping up production in the agricultural and industrial sectors and implementation of new investment projects for the creation of infrastructure (dams, roads, water supply, supply of electricity, transport, buildings, etc.) are all possible of quick achievement only through planning. Hence all countries operating the mixed economic system have gone in favour of central planning, which is the specific and special strategy adopted by all socialist economics for rapid economic growth and development.

PART II—PRICE DETERMINATION

# 5. COMMODITY MARKET DEMAND

Let us first examine the demand of an individual in the commodity market. We have already known the meaning of demand in Chapter 3. When we refer to demand for a commodity in the market, the statement of demand should contain the following information: (1) What is the area of the market, (2) What is the commodity, (3) What is the price, (4) What is the period (day, week or month) and (5) What is the amount of the commodity which will be bought at that price.

Any statement of demand without this information will not have any meaning.

**Individual's demand:** Suppose a consumer wishes to buy a commodity in the market. The statement of his demand for the commodity should indicate how much of the commodity he will be willing to buy at various possible prices.

For example, if Madhavi wishes to buy cotton handkerchieves with flowery designs in the Moore Market at Madras, and if the price of these kerchieves is quoted as fifteen rupees per dozen, we should state her demand like this: Madhavi would be willing to buy half-a-dozen kerchieves if the price of such kerchieves were fifteen rupees per dozen.

**Market demand:** In any market, there will be many buyers for a commodity. If we make a count of the individual demands of the various buyers throughout the particular market for the commodity and total them up, this aggregate demand for the commodity is known as the market demand for the commodity.

**Market:** In economics the term market has a specific meaning. Market in economics does not refer to a building or premises or shops, as the man in the street usually understands by the word. In economics market refers to an area over which the buyers and sellers of a commodity are in contact with each other and conduct transactions. Such transactions may be conducted in person by the buyers and sellers meeting each other or such transactions may be conducted over the phone, telegraph or through letter correspondence. Where the nature of the commodity requires the transactions to be conducted by the buyers and sellers by physically meeting each other the market for the commodity is likely to be narrow and limited in area. On the other hand, where the transactions in the commodity could be carried on without the buyers and sellers being physically present in the market, the market is likely to be wide and may extend over a large area. In this case contact could be established between the buyers and sellers with the help of telephone, telegraph, letter, etc. For instance, the market for perishable goods like vegetables, flowers, fruits, milk, mutton and eggs will be limited to a particular locality like a town or taluk or district. On the other hand, for durable goods (which are non-perishables) the market may be as large as a state or the country itself. Examples of such goods are rice, wheat, textiles, household utensils and furniture. Certain commodities like the precious metals (gold and silver), steel, rubber, coal and machinery enjoy world-wide market as their demand and supply are spread over the entire world. We can, therefore, conclude that the extent of the market for a commodity will be large or small according to the nature of the commodity and how much scattered are the buyers and sellers.

Let us look at the market demand schedule for a commodity, say, 'Nataraj' brand pencils and try to understand the nature of price changes and demand changes for this commodity. Table 5-1 shows the demand schedule for 'Nataraj' pencils.

TABLE 5-1

**Demand Schedule for Nataraj Pencils**

| Price of Pencils per doz. (Rs.) | No. of Pencils bought per week (in doz.) |
|---|---|
| 4-75 | 100 |
| 5-25 | 90 |
| 6-00 | 75 |
| 7-00 | 50 |

It is clear from the table that as the price of these pencils goes up the demand for pencils goes down. In other words, if the price rises less number of pencils will be bought; if the price falls, more number of pencils will be bought. Thus price and demand change in opposite directions. From this is derived the law of demand which states that as price falls the quantity demanded rises, and as price rises the quantity demanded falls.

**Factors determining demand :** Why does the demand for a commodity change from time to time? or what factors bring about changes in demand? For example, why does the demand for suger change from time to time? What factors cause the changes in the demand for sugar? Let us examine these factors one by one as below :

1. **Price of the Commodity :** We know that it is generally true that people buy more of a commodity when its price falls and buy less of it when its price rises. We observe in the market that if the price of mangoes falls, more number of mangoes are bought; if the price rises less number of mangoes are bought. Hence, we can say that one of the factors which affects the demand for a commodity is the level of its own price (this is in fact the law of demand stated earlier).

2. **Income :** Another factor which influences demand is the income of the consumer. We know that the purchasing power of a consumer is determined by his income. For example, if a

person's income is high the amounts of the commodities like sugar, biscuits, fruits and garments he buys are likely to be large. on the other hand, if a person's income is low, the amounts of these commodities he will buy will be less. Thus income is a factor influencing demand.

3. **Tastes and Fashions:** The tastes and fashions of the consumer are also important influences affecting the demand for goods. Whenever these change the consumer is likely to give up the purchase of certain goods for which his tastes have changed or which have gone out of fashion; on the other hand, he is likely to go in for the purchase of those goods for which he has acquired new tastes or which are of current fashion. For example, a consumer of garments who has been buying cotton garments so long suddenly changes over to dresses made from man-made fibres (like nylon, terylene, rayon and polyster) as his tastes and fashions undergo a change. Hence the demand for cotton goes down while that for man-made fibres goes up.

4. **Prices of Competing Goods:** For almost all goods there are likely to be other goods which are close substitutes. These substituties compete for the purse of the buyer. Let us take the example of the bath soap. Soaps like 'Margo', 'Rexona', 'Lux' and 'Hamam' are all close substitutes. though individual consumers may have their own little preferences among them. If the price of Margo soap rises, then the consumer who used to buy this soap until now is likely to consider a change over to Rexona or Hamam or even Lux as they all serve the purpose more or less satisfactorily. Though the reasons for a consumer buying a particular brand of soap may be many, an important consideration which weighs with him in buying it is its price. If among soaps of comparable quality the price of a particular soap rises the users of that soap are likely to shift from this soap to the cheaper substitutes available to them. The same is the case with coffee and tea; they both are close substitutes. If the price of coffee rises much, a large number of consumers of coffee are likely to shift to tea which is cheaper.

5. **Seasional Changes:** Change in the seasons of the year also causes change in demand for certain products. We can

mention a few examples of this type of goods. During the rainy season umbrellas are in great demand, but once this season is over the demand for umbrellas falls. Another example is the demand for cold drinks like sherbeth which rises steeply during the summer season when the weather is hot. During the cold weather days, the demand of cold drinks almost disappears. During the winter season, there is a great demand for woollen goods while its demand during summer is almost nil.

**Demand Curve and the Law of Demand**

We have seen the demand schedule contains a list of prices of the commodity and the corresponding quantities demanded at those prices. We can now have the demand curve drawn for the commodity making use of these two pieces of information or statistical data contained in the schedule. In other words,

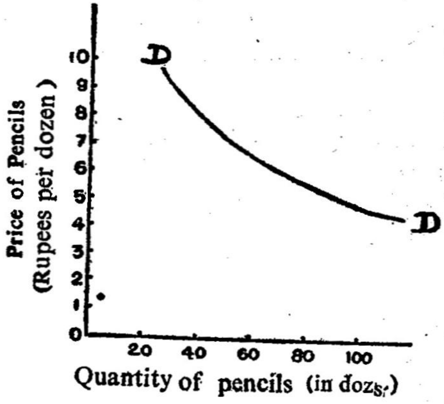



Fig. 5-1
Demand Curve for Nataraj Pencils

we can translate the demand schedule into a demand curve by making use of the graphical technique. For this, we have first to draw the two axes, namely, the horizontal axis and the vertical axis. We can have each of the axis divided into suitable subdivisions depending upon the range of prices and quantities to be represented on either axis. Now we can take up each price and the corresponding quantity and place a dot mark for each point which is given by the ordinate and abscissa of each

pair of price and quantity. Thus we will have four points, say, A, B, C and D on the space contained between the axes corresponding to the four pairs of prices and quantities. If we connect these points by drawing a smooth curve (a free hand curve), what we get is the demand curve for the commodity. Fig. 5-1 gives such a demand curve, DD. This curve slopes downward from left to right; this is the usual shape of the demand curve. What does this show? It shows that as price falls more of the commodity is demanded; as price rises less and less of the commodity is demanded. We should particularly note that prices and quanties demanded move in opposite directions. Let us remind ourselves that this is the same law of demand which we have known already.

**Law of Diminishing Marginal Utility**

This law refers to a common experience of all of us in our practical consumption of commodities. It is based on the psychological feeling of satisfaction we experience as we consume more and more of a commodity. For example, let us take a consumer of apple fruits. As he consumes or eats apples one after another, what do you think will be his experience? The first apple would give him a lot of satisfaction or utility. The second apple he eats would also give him a good amount of utility, but it is likely that he will derive less satisfaction from eating the second apple than what he got from eating the first apple. In other words, the utility which he derives from the second apple will be less than the utility derived by him from eating the first apple. Similarly, the utility of the third apple will be less than the second, and the utility of the fourth apple less than that of the third, and so on. Thus the utility of the successive units of the commodity consumed, without a break, goes on decreasing. Whether the commodity consumed is apples or oranges, dress or jewellery, cycles or radios, or even film shows or pleasure tours, the same trend of diminishing utility is seen. In other words, as a consumer goes on consuming more and more units of a commodity, the utility derived from the additional unit of the commodity consumed or what is called the 'marginal' utility of the commodity goes on diminishing. This is the generalisation or law which the economists have derived

from repeated observations of consumption everywhere. Hence this law is known as the Law of Diminishing Marginal Utility.

In fact, it is this law which is at the back of the law of demand. The law of diminishing utility and the law of demand are almost the two sides of the same coin.

The following are the Table and Figure showing the operation of the law of diminishing marginal utility :

TABLE 5–2

| Apple No. | Total utility (units) | Marginal utility (units) |
|---|---|---|
| 1 | 10 | — |
| 2 | 18 | 8 |
| 3 | 25 | 7 |
| 4 | 30 | 5 |
| 5 | 32 | 2 |

The above table shows in column 3 the marginal utility of apples as the consumer consumes more and more apples successively. In column 2 is shown the total utility at each stage of consumption, derived from all the apples consumed so far. It may be noted that though total utility goes on increasing at each stage, marginal utility goes on continually diminishing. That is why the marginal utility numbers given in the 3rd column go on falling from top to bottom.

The utility numbers, both the total utilities and marginal utilities given in the table, could be translated into graphical curves as shown in Fig. 5–2.

The method of drawing the curves is the same as the one we described earlier to draw the demand curve. By marking dots for the total utilities separately and marginal utilities separately we can draw two separate curves as shown in the figure. If you look at the curves, you will notice that the

total utility curve slops upward from left to right and the marginal utility curve slopes downward from left to right. The

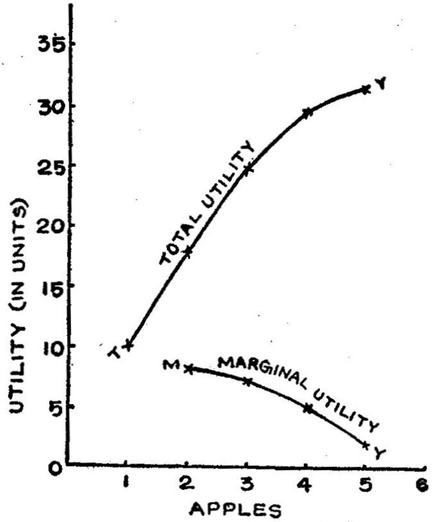



Fig. 5-2
Law of Diminishing Utility

former shows the increasing total utility and the latter shows the diminishing marginal utility.

**Elasticity of Demand**

We have already noted that the demand for a commodity generally changes with changes in its price (the law of demand). However, we should also understand that the changes in the quantity demanded caused by changes in the price differ from commodity to commodity. For example, the demand for rice does not change much with changes in its price. Similar is the case with articles like salt, condiments, matches, kerosene oil, etc. This is so because the quantities of basic necessaries that people buy are more or less constant irrespective their price changes. Hence economists say that the demand for these commodities is not elastic, i.e. it is inelastic. In general the demand for necessaries is inelastic.

On the contrary, the quantities of fine garments, jewellery, sugar, butter, fruits, sweetmeats and the like which people buy, depends very much on their prices. If their price rises a little, we buy less of them and if their price falls a little we buy more of them. In other words, a small change in the price of these articles causes a large change in the demand for them. In these cases we say that their demand is elastic. In general, the demand for luxury commodities is elastic.

**Factors Determining Elasticity of Demand**

What determines the elasticity of demand? In other words, why is elasticity low in the case of some commodities and high in the case of other commodities? The following are the causes which determine elasticity of demand for any commodity:

1. The degree of elasticity depends upon, first of all, the nature of the commodity. If the commodity falls under the category of necessaries, elasticity will be small or almost nil as pointed out earlier. People need to buy them almost in constant quantities as they are necessaries of life (eg. rice, salt, matches and the like). Contrarily, in the case of luxuries like silks and satins, scents and silver, meats and fruits, cakes and creams the elasticity of demand is likely to be high as people buy them only if they can afford their prices.

2. Elasticity depends also upon the possibility or otherwise of postponing the purchase of the commodity. For example, if the price of a pair of new shoes is high, the consumer may decide to repair his old pair of shoes and use them for some more time. Thus the purchase of the commodity is postponed. This shows that the demand for shoes and other durable goods like watches, garments, cycles, fountain pens is elastic as their purchase could be postponed.

3. If the commodity is such that if its price rises substitutes could be bought and used instead, this commodity's elasticity is likely to be high. For example, in the case of coffee and tea, if the price of coffee goes up, many of us are likely to stop buying coffee or reduce its purchase and instead take to tea which is a

cheaper substitute. Similar is the case with silks, diamonds, gold, jewellery, etc for which cheaper substitutes are available.

4. In the case of certain commodities the price of which is already very high or very low, any small fall in their price will not make much difference to the consumers. Let us take the example of gold and its present high price of about Rs. 150 per gram of 22 carat gold. At this very high price all those who can afford it would have certainly bought it. Suppose its price falls by Rs. 5 or 10 per gram, the amount of gold demanded is not likely to increase much as this change in price is too small to induce those who could not afford the earlier price to buy gold now the reduction in price is negligible.

5. There are certain commodities like salt and matches the consumption of which takes up a very small or negligible part of the consumer's income. Whether their price rises or falls it does not make much difference to the budget of the consumer in the case of such commodities. Therefore the amount bought is likely to be the same and elasticity is also likely to be negligible or nil.

6. In the short period, the elasticity of demand for commodities is likely to be rather low whereas in the longer period elasticity will increase. The reason for this is that in the short period it may not be possible to find out cheaper substitute goods for the one whose price has risen. But if sufficient time is allowed, it will be possible to find substitutes whose price is cheaper. Therefore elasticity in these cases is likly to depend on time period.

7. We will have to understand also the effect of the increased income of the consumer on the quantity of the commodity he buys. For example, when a person's income increases, he is likely to increase the quantities of vegetables, fruits, butter, garments, etc. he buys. This elasticity of demand is rightly called the income elasticity of demand.

# 6. COMMODITY MARKET—SUPPLY

**Market Supply:** We have already seen the meaning of supply in an earlier Chapter. There is a similarity between the definitions of demand and supply. Just as we have to specify the market, the commodity, its price, duration of purchase and the quantity demanded while stating the demand for a commodity, we have to specify the same while stating the supply of a commodity. For instance, if we wish to state the supply of mangoes in a market it will have to be on the following lines:

'At a price of Rs. 30/- per hundred for Bangalura mangoes in Salem mango market, the quantity of mangoes which sellers are willing to supply is 10,000 mangoes'.

You have to remember then, that while stating the supply of a commodity, you have to specify the particular market, the nature of the commodity, the supply price, the period of supply, and the quantity supplied at that price.

**Stock:** The total quantity of a commodity kept in stock by a seller is known as his stock. It is from this stock that the seller releases from time to time a certain quantity of the commodity for ready sale at a particular price. This is known as his supply. In otherwords, supply is that part of the stock which the seller offers to sell at a particular time at a particular price. Ordinarily, the seller does not put the whole of his stock in the market for sale at any one time. This is because the market price changes from time to time and the seller would like to earn maximum profits by adjusting his sale from time to time according to the prevailing price and expected profit. Further, supply should be made continually to the market without breaks as otherwise the seller will lose touch with the market.

**Law of Supply and Supply Curve**

Just like the law of demand there is the law of supply. If the price falls, supply also falls because the profit will be less

now; contrarily, if the price rises, supply also rises because it will be more profitable now. In other words, price and supply move in the same direction. You can see this trend from the Supply Schedule given below :

TABLE 6–1

**Supply Schedule for Nataraj Pencils**

| Price of pencils (Rs. per doz.) | Supply of pencils per day (in doz.) |
|---|---|
| 4–75 | 45 |
| 5–25 | 55 |
| 6–00 | 75 |
| 7–00 | 110 |

If you look at the Supply Schedule, it is clear that when the price of pencil falls, the supply of pencils falls too; whereas when the price of pencil rises, the supply also rises.

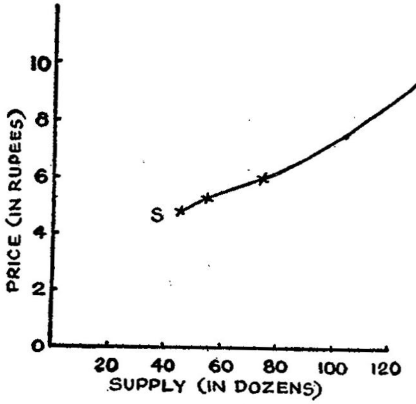



Fig. 6–1

**Supply Curve for Nataraj Pencil**

A supply curve could be drawn with the data in the table as we did in the case of the demand curve. The supply curve slopes. upward from left to right. This shows that supply

increases with a rise in price and decreases with a fall in price. See Fig. 6—1 for the supply curve SS.

**Supply in the Short Period**

The supply of a commodity will be small in the short period, but the supply will be large in the long period. This is because in the short period the means of production like machines and plant and other equipment will be fixed and production capacity cannot be expanded much in the short-run. We can give the example of fish supply in the short and long periods as it is simple to understand. The amount of fish that fishermen bring daily to the shore, say at the Madras Beach, depends upon the amount of nets, the number of men and the number of catamarans that they have for use. Therefore, supply of fish in the short-run, say, during a day or week will be limited to what could be caught or produced with the existing men and equipment. If the supply of fish is to be expanded much to meet increased demand for fish, this will be possible only after sufficient time has been allowed to increase the amount of nets, catamarans and men. In other words, a few months will be required to produce new nets and catamarans, as well as to train new men. That is why supply could be changed permanently only in the long-run.

If the demand for fish suddenly rises in the short period, the only way of temporarily increasing the supply to some extent is to use the nets and boats kept in reserve. By this method, supply cannot be expanded much but only marginally. Therefore, in the short period, whemever demand rises supply being limited, the price of fish will shoot up. Only in the long-run when supply is expanded enough price will come down again. If, contrarily, the demand for fish suddenly falls in the short period, supply remaining the same, then the price of fish is likely to dip. As supply could be reduced only in the long-run, price of fish can rise again only in the long period (even if you are a vegetarian, it will be instructive for you to visit the nearest fish market to observe this economic phenomenon).

**Supply in the Long-run**

We should understand that the supplies of almost all goods can be expanded in the long-run. This is because the long-run

refers to a period which is sufficiently long to expand the means of production. In the case of the fishing industry, this period refers to the period required to manufacture new nets and boats besides training new men. Similarly, in the shipping industry or air-line industry, the number of ships or aeroplanes cannot be increased in the short-run, even if the demand for them has risen. Their numbers could be increased only if a sufficiently long time is allowed to enable the production of new ships or aeroplanes, to be completed, may be, a few years.

# 7. DETERMINATION OF PRICE IN THE MARKET

We have explained in the previous Chapters the concepts of demand, supply and elasticity of demand. In the present Chapter, we will bring together demand and supply for a commodity, and observe the operation of these two forces in the market. Also, we will observe how the determination of price for the commodity takes place in the market.

If the market for a commodity can be likened to a stage, then demand and supply can be said to be the main actors on this stage. But there is a difference between these and other actors in other stages. Whereas actors in a drama play the same role throughout the drama, demand and supply, on the contrary, go on changing in amount and importance, from time to time. Accordingly, the price which reflects the relative importance of demand and supply at any particular time, will also be changing from time to time. Let us have a look at this spectacle now.

If we now put together the demand schedule and the supply schedule for 'Nataraj' pencils, given in the previous Chapter, and present them in the same Table, it will be easy for us to

TABLE 7–1

**Combined Demand and Supply Schedules for Nataraj Pencils**

| Price of Pencils (in Rs. per dozen) | Demand for pencils (in dozens) | Supply of pencils (in dozens) |
|---|---|---|
| 4–75 | 100 | 45 |
| 5–25 | 90 | 55 |
| 6–00 | 75 | 75 |
| 7–00 | 50 | 110 |

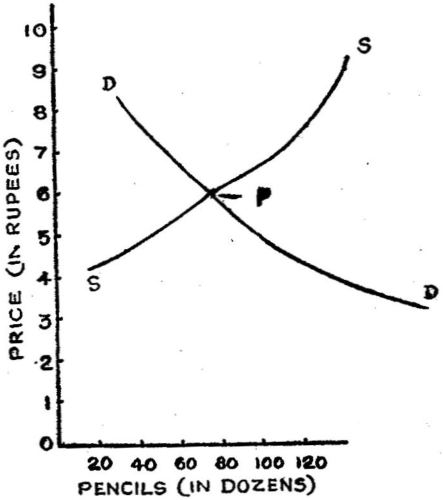
understand how the price of 'Nataraj' pencils is determined in the market, depending upon its demand and supply. The common table containing both the demand and supply schedules for 'Nataraj' pencils is presented below:

If you look at this Table you will find that against each of the prices (in column 1) is shown the corresponding quantity of pencils demanded (in column 2); the quantity of pencils supplied at each price is shown in column 3. You can see from the Table that at a price of Rs. 6/- the quantity demanded and the quantity supplied are exactly equal to each other, namely, 75 dozens of pencils. At all other prices the quantity demanded and supplied differ from each other. This difference between the two quantities at all other prices proves the law of demand and supply as price falls or rises from Rs. 6/- the demand and supply move in opposite directions. It is, therefore, clear that at only one price namely, Rs. 6/- do demand and supply equal each other. Such a price which equates supply and demand in the market is known in economics as the equilibrium price. This equilibrium price will not be constant in the market, but will vary from time to time depending upon changes in the demand and supply of the commodity from time to time. Such changes also depend upon the nature of the commodity. For example, in the case of highly perishable commodities like vegetables, fruits, fish and flowers the equilibrium price is likely to vary from hour to hour, day to day, week to week and month to month. This is because of variations in their supply as well as demand from hour to hour, day to dry, week to week and month to month. Even in the case of non-perishables, such changes are likely; but the changes in supply and demand for these commodities will not occur so frequently or at such short intervals. As non-perishable commodities (e. g., salt, sugar, matches, kerosene, rice etc.) could be stored for considerable periods of time, their supply be kept steady over short periods at least; their demand too is likely to be steady over short periods.

We could have a clear understanding of the determination of the market equilibrium price for 'Nataraj' pencils if we translate the demand and supply schedules from the above Table into graphical curves as in Fig. 7–1.

As demonstrated in earlier Chapters the quantities demanded and supplied at each price could be shown by dot marks and if these are joined by smooth curves, we will obtain the demand and supply curves respectively as shown in Fig. 7–1. You can

see that the demand and supply curves intersect each other at point P, which shows that demand and supply are equal to each other at a price of Rs.6/- (see the price in the Y axis). Therefore, 'P' is the equilibrium price, namely Rs.6/-. Either above or




D—D : Demand Curve
S—S Supply Curve

Fig. 7-1
Market Equilibrium Price

below this equilibrium price, the demand and supply curves diverge from each other, showing lack of equality or equilibrium at all other prices.

**Time Periods and Price Determination**

The price of any commodity is likely to be one thing in the short period and another in the long period. In other words, price depends also on the time period under consideration. For example, let us look at the daily phenomenon in the fish market. As this is a very short period, the daily supply of fish in the market is all that is brought ashore in the morning (or evening) of that day. It will not be possible to increase the supply beyond this quantity until the next day. Even on the subsequent days, it may not be possible to increase the supply beyond the daily average, even if the demand for fish rises during this period.

We have already seen why this is so in the previous Chapter. We shall analyse the situation a little more. Let us suppose that demand for fish rises suddenly. Though demand has risen, it will not be possible to increase immediately the supply to meet this increased demand. This is because supply cannot be increased suddenly with the existing men and equipment like boats and nets. It could be increased only after the number of trained men, boats and nets have also been increased to produce a larger supply. But it will take a considerably long time to increase men and equipment, Hence, any permanent increase in the supply of fish would become possible only in the long-run. As this could not be achieved in the short-run, the supply of fish during the short period will be limited to the present supply and is almost fixed.

If, however, the increase in demand continues for days, weeks and months it means that there is a permanent increase in demand. Such a permanent rise in demand in the long-run will make the suppliers take action to bring about a permanent increase in supply as it will bring them increased profits. They will, therefore, take steps to acquire more boats and nets, besides training more men in fishing. Whereas they will hesitate to do this in response to a temporary rise in demand, they will be eager to do this if they are satisfied that there is a permanent increase in demand.

Now, you may ask what is the effect of time-periods on the price of the commodity? We have just now seen how supply cannot be increased during the very short or even short period in response to a rise in demand in the short-run. As in the short period supply cannot be increased whenever demand increases, the result will be a rise in the price of the commodity in the short-run. However, if the rise in demand persists the suppliers would like to increase supply at least in the long run as larger supply and larger sales would bring them larger profits. Therefore, supply is bound to increase in the long period; demand being met fully in the long-run the temporary rise in price (rather abnormal rise in price) will give place to a more normal price.

It was Alfred Marshall, one of the great economists of the 20th century, who explained at great length the connection between time-periods namely, the short period and the long period and the determination of price.

## TYPES OF MARKETS AND PRICE DETERMINATION

To the ordinary man the mention of market will bring before his eyes the attractive shopping places where various goods are colourfully displayed for sale, the calling of wares and quoting of prices take place and the procession of well-dressed men and women who go round the shops to make purchases of diverse commodities. But, for the economist the market is an object for close scientific observation and study. Markets differ according to the commodities, traded in, their location, the number of buyers and sellers, and the freedom of entry. You should know the classification of markets in economics on the basis of the above considerations. Have you thought about the nature of the market you have frequently visited?

There are different types of markets according to the nature of the competition prevailing in the market. One important type (rather a theoretical type) is what is commonly known as the perfect market or perfectly competitive market. We should try to understand what is meant by the perfect market as this concept is fundamental to the understanding of all other types of markets. In general terms, the perfect market is one in which first, there is perfect competition between the buyers and sellers of a commodity; there is also no limitation or restriction on the actions of buyers and sellers; and they are also supposed to possess a perfect knowledge of the market. Let us then enumerate the important charcteristics of perfect competition which make it an ideal type of market situation, free from imperfections.

### Characteristics of Perfect Competition

(1) There are a large number of buyers and sellers of the commodity. Therefore no individual seller or buyer can influence the price in the market as the quantity sold or bought by him is a small proportion of the total quantity.

(2) The commodity sold is identical throughout the market.It does not vary from one part of the market to another (i.e. it is homogeneous).

(3) The buyers and sellers of the commodity have complete knowledge of the conditions prevailing in all parts of the market.

(4) The factors of production like land, labour, capital and organization have complete freedom either to enter the market or leave the market at any time.

Perfect competition could prevail in a market only if the above conditions are satisfied. As a result of such competition only one price can prevail in the market for the commodity at any one time. Such perfect competition may be seen to prevail today only in the markets for food grains (wheat or rice), sugarcane, tapiaco, pulses and dhall. This is so because only in the case of agricultural commodities such uniformity of the product could be had. On the other hand, in the case of manufactured products the commodity sold by different sellers will be different (e.g. cloth, cycles, fans, ball point pens and the like).

If even one of the four conditions of perfect competition is not satisfied, then competition in the market will become imperfect. Generally, economists classify markets as perfect or imperfect on the basis of the number of buyers and sellers of the commodity and the differentiation of the product sold by different sellers.

The competition that prevails in a market may or may not be perfect or pure in which case it becomes imperfect or impure competition. One extreme type of imperfect competition is known as monopoly. In this there will be only one seller for the commodity who will have sole control over the market for the commodity. In another type, there will be large number of small monopolists each one of whom will sell a differentiated product. Each of these sellers will have control over the special market for his variety of the product. This situation is known as monopolistic competition (competition among monopolists). A slightly different type is known as oligopoly in which there will be a handful of sellers, competing with each other, with

differentiated or even similar product. However, each of these various types of imperfect competition may be somewhat different from the others. Either the commodity sold will be a unique product without a close substitute as in the case of the Parker gold cap fountain pen or Omega wrist watch or Rolls royce motor car (a monopoly product); or the commodity sold will be slightly differentiated i.e., will have many different varieties sold by monopolistic competitors. Examples of such differentiated products are chocolates, bottled drinks, bath soaps, ready-made shirts, pens and pencils, radios, television sets and motor cars. In each of these products there are different varieties based on different brand names, trade-marks, colour, appearance, smell or even package. In fact, today, it is this monopolistic competition which prevails in the markets for most commodities in the world.

In perfect competition there are no such differences in the commodity sold as it is identical or homogeneous in its characteristics throughout the market. Also, the number of sellers of the product is so large and the quantity supplied by each seller so small that no one individual seller will be able to change the prevailing price of the commodity in the market by his own action. He is one among a hundred or a thousand sellers of the same commodity. If an individual seller raises his price, no one will buy from him as the buyers can go to his competitors who sell at a lower price than him. On the other hand, if he lowers his price, he is likely to make a loss as his competitors may not lower their price.

Therefore, we can conclude that no individual buyer or seller can influence the price in the market under perfect competition. Each of them has to accept the prevailing price in the market and transact business at that price. But this is not the case with imperfect competition. Under imperfect competition each seller is free to fix his own price for his variety of the commodity. As the products sold by different sellers are not identical, there cannot be a single price for all the sellers. Each one enjoys a degree of monopoly for his own variety of the product. Therefore, he can raise or lower the price of his product to some extent without minding what others do.

## PART III—PRODUCTION AND PRODUCTION FACTORS

# 8. FACTOR MARKET

We have already seen that there are four basic factors of production namely, land, labour, capital and organisation. No production will be possible without all or a few of these basic factors. We should now proceed to examine the nature and characteristics of each of them, also their supply conditions and their special role in production.

### LABOUR

The amount of labour available in a country does not depend only on the numbers of the workers. It also depends upon the number of hours of work per day or per week they are willing to put in. Further, the total production of goods and services in a country is determined not by the quantity of labour alone; it is also determined by the nature or quality of the labour. For instance, the productivity of trained workers, educated artisans and skilled labourers will be higher than that of their untrained, uneducated or unskilled counterparts in the same field or factory. In all the developed countries of the world the productivity of labour is said to increase by two or even three per cent per annum. This has partly helped them in achieving about 5 to 10 per cent of economic growth per annum. If in newly developing countries like India the productivity of labour could be substantially raised, they could also attain faster economic growth than at present. This is the lesson we learn from the experience of developed countries.

**Mobility of Labour**

If industries are to develop and expand rapidly in a country, then, workers should move to those centres where there is greater demand for labour from those centres where the demand is less. Hence, economic growth will be considerably helped by the quick movement of workers to centres where they are badly needed. In other words, the degree of mobility of labour determines to a

great extent the expansion of output of goods and services. When, as a result of the economic growth of the country, the old industries expand and new industries develop the additional man-power required for them is almost wholly to come from the rural areas. Thus the migration of workers from the villages to the towns cannot be avoided in a developing country. As modern industries could not get located in villages, the workers have necessarily to move towards the towns and cities where these industries get stuck. The same trend is seen today in our country too. But it is true that in India such mobility of labour is greatly handicapped by factors like the conservatism of the rural population, attachment to the soil where one's forefathers lived and the fear and ignorance of a new strange place on the part of the workers. If incentives are offered to those who migrate, if education is given to them, and lastly, if housing health and other facilities are also offered to the migrant workers in the new place labour mobility could be encouraged and very much promoted.

The living conditions of workers also affect their productivity. Productivity will be favourably affected if the following facilities are provided to them: Improvement of housing; availability of nutritive food at cheap prices; provision of health facilities; clean and healthy surroundings in work places, fresh air, good lighting, temperature control and the like. These are almost essential to improve the productivity of workers.

**Malthusian Theory of Population**

One of the most important and most well-known theories in economics is what is known as Malthusian Theory of Population. Malthus, a great English economist, published in 1798 an 'Essay on the Principle of Population', which was the result of many years of research by him. He had investigated the nature of reproduction of various species among insects, birds, animals and men. He wanted to find out how and at what rate such reproduction took place. He gathered a good lot of information on these aspects and worked out his interpretation which is now known as the Theory of Population. He found that, in nature, there are insects which multiply in millions per minute as well as

animals that give birth to young ones only once in many years. He had also discovered the interesting fact that the availability of food supply regulates the number of the living things in nature. He found also that there was a close connection between the multiplication of the human race and the increase in food production. After investigating the nature of human reproduction and food production and the connection between them, he arrived at a clear and surprising conclusion about the growth of human population.

According to Malthus, the increase in population takes place at a geometric progression like the series 2; 2×2; 2×2×2; 2×2×2×2, etc. whereas the increase in food production takes place only in arithmatic progression like the series 2; 2+2; 2+2+2; 2+2+2+2. On the basis of this tendency, Malthus predicted that population, if unchecked, is likely to double itself once in a generation, i.e. in about 25 years. But food production would not double itself during a period of a generation, viz., 25 years.

Malthus found that this gap between population increase and food production would result in a crisis if not a disaster. When food production is outstripped by population growth, there will naturally arise food shortage, famine and starvation. This will further lead to disease and death, thus limiting the number of the population until a balance is restored between population and food supply. This, according to Malthus is the natural check or positive check on population growth imposed in nature. Such a positive check is of course cruel but certain if we do not ourselves voluntarily control the numbers. But it is possible as well as desirable for us to exercise a preventive check by way of voluntary limitation of the growth rate of population. By such voluntary limitation we can avoid the misery caused by the positive checks in nature.

What is meant by the preventive check? Malthus himself had suggested a number of steps which could help us to limit the growth of population. These steps include postponement of marriage by young people, continence or avoidance of sex life for long periods, and exercise of self-control over sex instinct

and the like. In other words, all those measures which will either postpone or reduce the number of births in families were emphasized by Malthus. Societies which fail to adopt such a preventive check will no doubt have to regret later when dreadful famines and diseases or even wars breakout due to the excessive growth of population.

This startling revealation by Malthus shook the whole world and it was readily accepted as true in most of the western countries in the 19th century. Intellectuals and religious leaders, social reformers and moral philosophers, political leaders and governments believed in the validity of the Malthusian theory of population. They advocated corrective measures and preventive checks by Governments and individuals to avoid the disaster predicted by the prophet of gloom, namely Malthus. Even in the 20th century, all the symptoms of excessive population with food supply lagging behind, were clearly witnessed in the underdeveloped countries of Africa and Asia, besides some of the European countries with rapid population growth. In most of these countries, the population was seen to be growing at 2 to 3 per cent or even more per annum. All these countries realised the validity of the Malthusian predictions when they themselves were affected by food famine, starvation, wars, diseases and other natural disasters. Individuals and societies began to think seriously of actively limiting the population to avoid these disasters. In the 20th century the growth of population was almost brought under control by planned parenthood by married couples in many European countries like France, Germany and Sweden and the United States of America and Canada. Today, in some of these countries like France and Sweden, population has almost stopped growing. There is a fear that population growth may even be negative in these countries. Husbands and wives in these countries have exercised self-control (of course, birth control, too !) as they were convinced of the fact that enlarging the size of the family brings down their standard of living. They have realised the folly (why even stupidity!) of inviting squalor and poverty through undue expansion of the family. Too many births meant loss of the existing standard of living, loss of health and happiness in the

family. They even began comparing the attractiveness of another baby as against another Television set or another car. Most of them preferred an additional cycle, scooter, car or television to an additional baby in the family. Economic calculations entered decisions in family planning. In other words, they realised that the secret of improving the family's standard of living lay in the limitation of the family or birth control. This idea spread among all classes of people in the Western countries and they all took to birth control methods even when self-control methods failed. Thus the gloomy end predicted by Malthus was averted in the west.

However, the Malthusian theory, with all its implications, is still witnessed in countries like India. It seems that all its predictions are true as far as India is concerned. Famine and floods, drought and disease, wars and epidemics, infant mortality and infectious diseases are all prevalent in our country and are proof of the ills of excessive population. However much we increase our food production, it does not prove enough to feed the fast increasing mouths in our country. At this rate we will be very soon reduced to the status of the legendary Kuselar whose two dozen and odd children could not be provided each with even one morsel of food a day. We would require again the legendary miracle of Manimekala's bounteous food vessel with infinite food supply to feed the growing millions; or we may need the Alladin's lamp of the Arabian nights story by the mere rubbing of which we could satisfy all our heart's wishes. Unfortunately, there are no such miracles available in the modern world (in the real economic world !). Hence the only alternative to abject poverty and untold misery seems to be to limit the number of mouths clamouring for food, that is, to limit population growth by all possible means. We should even treat this as a war campaign and wage war on excessive number of births (in many countries, even abortion has been made legal to terminate pregnancy and to prevent births, if other methods have failed !). Unless we adopt bold measures of birth limitation in our country, we will, in another few decades, become the laughing stock of the world as a country of lofty ideals but ridiculous and miserable mismangement of our material living

conditions. We should plan our future and make it happy and prosperous with a manageable population; we cannot sensibly plead that it is beyond our control or comprehension, and is a consequence of destiny.

It is a pity that inspite of all our ambitious plans for eradication of poverty and improvement in the welfare of our people, we have not proved ourselves equal to this task of family limitation. Many other countries, especially in the West, have achieved the limitation of their populations as dictated by economic necessity; but we have yet to venture seriously in this direction. When are we to achieve the same success as these countries in keeping population growth below the growth in production of food?. Only the youth of our country could ensure this happy result atleast in the future!

**The Population Problem in the World Setting**

The one great problem which the world faces today, a problem which is at once most serious in its consequences and which should be solved without any more delay is the excessive population growth in the world as a whole. We see today with our own eyes the evil consequences of over-population of the world: food shortage, housing-shortage, shortage of living space and congestion in the cities and towns. In the poor countries of Asia and Africa children and pregnant mothers die in thousands due to malnutrition and diseases resulting from it.

You will have to understand how the population of the world has been increasing at a rapid rate during recent decades. Economists and Demographers have found it useful to measure the rate of growth of population in terms of the time taken for population to double itself-doubling time. In other words, how many years it takes for population to double itself. Population experts have made a speculative estimate of the population of the world around 8000 B.C. as only 50 lakhs. According to them, very early in the history of mankind its population was only 25 lakhs. You will be surprised to know that it took nearly 10 lakh years for this world population to double itself and reach 50 lakhs. Could you guess how long it took for its

subsequent doubling? World population had its next doubling in a much shorter period of just 2000 years. What a fast leap of population growth even by those early times. One important reason for this rapid increase in world population is said to be the revolutionary progress achieved in agriculture, especially, the resulting rise in food production. Such a fast growth of population took it to 120 crores by 1650 A.D. With this phenomenal growth in population the time taken for population to double itself progressively decreased. By 1650 this period had fallen to 200 years. World population had reached the staggering figure of 251 crores by 1950. At the same time the doubling period had fallen to 100 years only. Today, the world population has gone up to the astronomical figure of 400 crores; also the time taken for the doubling of population has been drastically reduced to 30 to 40 years. The future looks threatening with population growing at this accelerated rate. One wonders as to what will be the fate of this galloping population if food supply does not keep pace with this rising rate of population growth. The Table below illustrates the galloping growth of the world population from 1750 onwards.

TABLE 8–1

**Growth of World Population and Projections**

| Year | Estimated World Population (in Millions) |
|---|---|
| 1750 | 791 |
| 1800 | 978 |
| 1850 | 1268 |
| 1900 | 1650 |
| 1950 | 2506 |
| 1960 | 2995 |
| 1970 | 3621 |
| 1980 | 4401 |
| 1990 | 5346 |
| 2000 | 6407 |

(*Note :* One million refers to 10 lakhs)

*Source :* P. Calve and G. Waugh (Micro Economics)

**The Population crisis**

What is the meaning of population growth? It results from the difference between the death and birth rates in a community. It is only in recent decades the growth rate of population has substantially risen. In the early decades of this century the death rates used to be almost as high as the birth rates. When the death rate was 40 to 50 per thousand during the period prior to the agricultural revolution, the birth rate was only slightly higher than the death rate. Therefore, the difference between these two rates was small and population growth was taking place at a slow rate.

With the passage of time man had mastered the art of cultivation and brought about a many-fold increase in food production; also the growth of civilisation brought about better living conditions to the community and a considerable reduction in the hazards of life. All these factors together contributed to a fall in the death rate. No doubt the growth of population has never been continuous, especially, due to the occurrence of natural disasters, famines and diseases which periodically reduced the population. For example, the Black plague which occurred in the 14th Century reduced the population of Europe by about one-third. All the same, the growth of world population has not been checked much but for brief interruptions. The trend of falling death rate has continued ever since and has been responsible for the rapid growth of population is recent times. Factors like freedom from frequent wars, relative peace, the growth of cities and provision of drainage and sewerage facilities, the discovery of new drugs, and medicines to cure diseases, the improvement and spread of medical and health facilities, the availability of life-saving drugs, and the control of bacterial infection have all considerably helped to reduce deaths. For instance, death rates fell in Europe below 20 per thousand due to these new developments.

It is interesting to compare the situation in the developed countries with that in the under-developed or developing countries like India. There is an important difference between these two categories of countries in the matter of population growth.

Whereas in the developed countries the falling death rates have been accompanied by a fall in the birth rates, this has not been so in the case of the under-developed countries. In other words, in developed countries both death rates and birth rates have declined in recent decades. But this is not the case in under-developed countries where the death rates have fallen but the birth rates have not fallen. In fact, in these countries death rates have fallen more rapidly without a substantial reduction in birth rates. This has resulted in the gap between birth and death rates widening and the growth of population exploding in these poor countries.

In the developed countries, the spread of higher education and the quest for a higher and higher standard of living have induced the couples to limit their families. There people seem to have preferred a better standard of living to a larger family and hence the birth rates have registered a sharp decline. In most families in such countries the number of children does not exceed one or two.

In contrast, in underdeveloped countries, including India, the birth rates have not fallen much. In our country the death rate has fallen to about 20 per thousand in recent years while the birth rate is still around 40 per thousand. Such a continuation of the high birth rate and the resulting high growth rate of the population in these countries have indeed worsened the situation and made the world population problem more critical.

This population explosion of the world poses many serious problems for the future of mankind. Demographers foresee the doubling of the world population in the next 30 to 40 years if urgent steps are not taken to control the growth of world population. It is predicted that the population of the world will reach the figure of 6400 millions (i.e., 640 Crores) by 2000 A. D. At this rate, it is said that even if we are to simply maintain the existing inadequate standard of living of the people in vast areas of the world, in another 35 years' time, our cities will have to double in size; food supplies must double and housing must double besides sewerage and health facilities.

It is obvious then that many countries of the world in Asia, Africa and Latin America are at present subjected to poverty by their rising populations. How long can the world with its present inadequate resources continue to support this staggering explosion of the population !

## LAND

We have noted already that land in economics refers to all types of natural resources. Let us now see what is the nature of land from the economic point of view. It is obvious that in any country the area of available land surface is essentially limited. In other words, we cannot bring about an increase in the land area (excepting when rarely the sea withdraws and throws up a new piece of land!) or a decrease in the land area. However, we can increase or decrease the amount of land under cultivation by extending cultivation to new lands or giving up cultivation of lands already under the plough. New irrigational facilities and drainages could help in achieving extension of the cultivated area. But in countries like India such further extension of the land under cultivation may not be possible because ours is an old country with excessive population and all available land has already been brought under cultivation. Hence, the need in India is not extensive cultivation but intensive cultivation, i.e., cultivating the same lands under cultivation more and more intensively; it means cultivation of the same piece of land again and again with increased doses of labour and capital.

It is wrong to think that land is capable of being put to a single use only. In fact land could be put to many different uses by man : one can cultivate on his farm either rice or sugar-cane or even plantains. What particular use a piece of land will actually be put to, depends upon which particular use will bring the landowner maximum profit. For example, if the rent land fetches when let out for sugar-cane cultivation is the highest, then land is likely to be put to that particular use only. That means, the amount of rent which land will fetch from the cultivation of rice or plaintain will be less than the rent from the cultivation of sugar-cane. In general, each and

every piece of land will move from the use which fetches a lower rent (or lower income or profit) to the use which fetches a higher rent. Such changeover from one use to another (or mobility of land use) according to the expected rental income is seen all over the world. This aspect has been studied by economists and they have found that for any particular piece of land there is a minimum earnings which will retain it in its existing use i. e., keep it in its present use without changing over to an alternative use. Such earnings of land which are the minimum required to prevent land from changing over to an alternative use is known as transfer earnings of land.

**Law of Diminishing Returns**

It is the common experience of farmers that the returns from a piece of land from year to year do not remain constant but go on diminishing eventhough the same amounts of labour and capital are applied in its cultivation. This does not refer to changes in returns from land due to changes in weather, or the effects of floods, drought or crop-pest. Damage to crops by these occur once in a few years and cause loss to the farmers. Even if we assume that such things do not occur, i.e. other things remain the same (this is the special assumption of economists to keep the situation simple for analysis), still we find the operation of diminishing returns in land. Economists and agricultural experts have found from experience and experiment that when the same piece of land is cultivated again and again with increased amounts of labour and capital, returns begin to diminish after a point. This tendency was first brought to the notice of the world by the two great classical economists, namely, Ricardo and Malthus. They formulated this universal tendency as the law of diminishing returns. But it was Marshall, the neo-classical economist, who elaborated the law into its present form as follows :

"An increase in the capital and labour applied in the cultivation of land causes in general a less than proportionate increase in the amount of produce raised, unless it happens to coincide with an improvement in the arts of agriculture"

This shows that after a certain stage in cultivation has been reached, the soil fails to respond (or its properties are exhausted).

to the efforts of man; and yields a diminishing return to new applications of labour and capital. Only changes in the methods of cultivation or the introduction of new machines or new fertilizers could counteract this tendency for returns to diminish.

This law almost casts a gloom over the future of man-kind if we realise its implications. We have already observed the danger to humanity caused by excessive multiplication of the population as pointed out by Malthus. In addition, nature poses another threat to humanity from the side of food supply too through the law of diminishing returns. In fact, there is thus a double threat to the future of mankind and Malthus is truly a prophet of gloom. This law predicts that agricultural production, whether it is rice or wheat, cereals or millets or even pulses, cannot be maintained, let alone increased, unless new methods of cultivation (like the Japanese method of cultivation of rice), new tools and equipment (new machines like the tractor, the pumpsets etc.) and new inputs (like new fertilisers, hybrid seeds, pesticides etc.) are applied from time to time. If we relax, then agricultural production will slip down and consequences like famine and starvation cannot be avoided. The Food and Agricultural Organisations (FAO) (a subsidiary of the United Nations Organisation) publishes every year a review of the world trend in agricultural production; it quite often points out the failure of world food production to maintain itself and warns of the dire consequences of this declining trend; it urges steps both to increase food production through improved methods and also indirectly the need to limit population growth in the famine-prone areas of Africa, Asia, Latin America and parts of Europe.

It has been established by production statistics in almost all spheres of agricultural production that this law of diminishing returns is seen in operation whether it is fish production in the seas, mineral production in the mines, crop production in the plains or production of oil from the oil wells in Arabia. In India, we have witnessed this law in our agricultural production even many decades ago as we are an old country in which crop cultivation has been carried on for many many centuries now.

This is one reason why in India the average yield of land and hence the average income of the farmer is quite low (when compared with the newer countries). The standard of living of the small Indian farmer is miserably low, possibly because of this. The only way to bring about a change in this condition is to continually bring about changes in the arts of cultivation, including new agricultural strategies and new technologies. The only area in which the law of diminishing returns does not operate is the manufacturing industry in which land and its soil plays a negligible part. Wherever nature plays a part, that too an important part, in production, this law is bound to operate.

The particular causes which invite the operation of this law of diminishing returns in agriculture are : (a) the limitation of the supply of land and other natural resources, (b) our efforts to economise the use of land, (c) keeping the quantity of land constant and varying the quantities of the other factors only in trying to increase production.

The law of diminishing returns is a nightmare to man-kind and may be described as the sword of Damocles hanging over the head of humanity.

Let us see how this law operates. The Table below helps to illustrate this law :

TABLE 8–2

**The Law of Diminishing Returns**

| No. of men | Total Return or output (in kilos) | Marginal Returns (in kilos) |
|---|---|---|
| 1 | 200 | — |
| 2 | 450 | 250 |
| 3 | 620 | 170 |
| 4 | 770 | 150 |
| 5 | 880 | 110 |
| 6 | 960 | 70 |

This table gives the data for the production of potatoes on a piece of land. When more and more men are employed on the same amount of land (keeping land constant) in the production of potatoes, the outputs obtained, both total and marginal, are shown in the table. As the number of men are increased without increasing land correspondingly, the amount of land available per man decreases. This causes decreasing returns. This is reflected in the figure given in the table.

When a single man is employed in potato cultivation, the output is 200 kilos. When a second man is taken, the total output is 450 kilos. The output when two men are employed is more than double the output of a single man, because with two men the land is cultivated better with division of labour. Thus, the additional output due to the second man, or the marginal return when two men are employed is 250 kilos. However, when the third man is added, though the total output increases to 620, the marginal output falls to 170 from the previous marginal return of 250. The addition of the fourth man brings an additional return of only 150; the fifth man adds a marginal return of 110; the sixth and the last man employed adds only 70 kilos.

What do we understand from this declining marginal returns as more and more men are employed? Though the total return increases, it increases at a decreasing rate. In other words, the marginal return goes on diminishing with the addition of more and more men in cultivation. This fact proves that the law of diminishing returns is in operation. It operates in all cases of agricultural production. This made the economist Clark remark humourously, that "If there is one factor of production which is not subject to the law of diminishing returns it is knowledge".

We can have a clear understanding of this law by translating the data in the above table into a graphical curve, as we did in the case of the law of diminishing utility, earlier.

**Marginal returns**

The marginal return obtained through the employment of each additional men is shown by the respective rectangle in the

figure. If a smooth curve is drawn through the top centres of these rectangles, we get the curve of marginal returns which slopes down from right to left This falling curve shows the

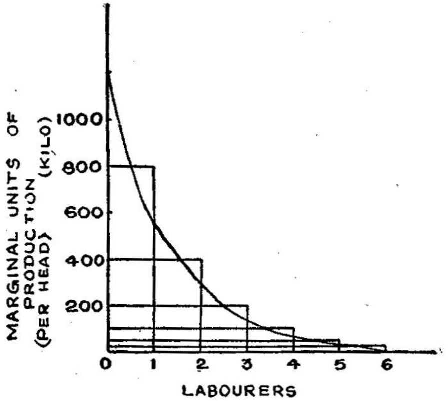



Fig. 8-1
Law of Diminishing Returns

falling or diminishing marginal returns. The differences between the successive total returns give the marginal return at each stage. Though the total return increases from 200 kilos to 960 kilos, the rate of increase goes on diminishing. While it is 200 for the first man, it is only 70 for the sixth man, as shown in the table.

## CAPITAL

We have discussed earlier how capital is essential for all production and the crucial role it plays in the economic development of countries.

Capital has many forms. We will recall that all kinds of tools, machines, equipment, factories, buildings and other means of production will be covered by the term capital. The quantity of this capital available in each country varies from country to country. For instance, capital accumulation is very large in the U. S. A., European countries, U. S. S. R. and Japan, whereas it is rather small in India, and many countries of Asia and Africa.

We have to note the fact that in countries which possess large quantities of capital the production of goods is also large, whereas in countries which are short of capital, the production of goods is also limited. This fact emphasizes the close connection between capital accumulation and production of goods in any country in general. It is obvious then that the quantity of capital or the produced means of production determines the quantity of further production that is possible. This is not surprising as all future production depends upon the present stock of capital. We can enumerate a representative sample of capital goods to have an idea of the range of capital goods that are required to achieve modern economic development. From shovels, sickles, ploughs and crowbars to bullock carts used in agriculture; from spinning mills, paper mills, sugar mills and cement mills to the iron and steel plants; from car factories, cycle factories to railway coach factories; from ship-building yards to aeroplane-building factories; from food manufacturing factories to factories turning out diverse consumer goods, from school buildings to hotels all these constitute a nation's capital on which depends all future production.

There is another aspect to the importance of capital as an aid to production. Each and every worker needs a certain amount of instruments and tools, in other words, capital to work with in the process of production. The average amount of such capital which is available to every worker in a country depends upon the total amount of capital accumulation in that country. As this quantity of capital increases in the country, the per capita (per head) availability of it to the worker automatically increases. When the worker has a greater quantity of such capital he will be able to produce a greater quantity of goods with the help of more equipment. For instance, in the advanced countries where capital accumulation is very large, the average amount of capital available per capita for the workers is said to be approximately Rs. 40,000/- worth. But in underdeveloped or developing countries like India the per capita availability of capital is only about Rs. 1000 worth. It is this great difference in per capita availability in capital which accounts for the great difference in wealth production

(G.N.P) between the developed and the developing countries. In fact, this is the basic factor behind the poverty and prosperity of nations.

There may be many causes for the national income of one country to be higher and that of another country to be lower. This may be partly due to the differences in the productive efficiency of workers between the two countries; partly due to differences in the size of the work-force; there may indeed be a great difference between two countries in the endowment of natural resources; there may be differences in the socio-political and cultural traditions and organisations which influence wealth production. All these factors could no doubt contribute to the differences in the national income of different countries. However, economists have reason to emphasise the crucial role of capital in determining these differences in wealth production.

Suppose you visit the Neyveli Lignite Corporation's mining site to watch the mining operations there. You will observe the bucket-wheel excavator at work there digging and lifting every time a quantity of material which is a thousand times larger than the quantity that could be removed with the help of a hand-shovel. In fact, the former machine is a gigantic piece of capital which increases production manyfold. You will be wonder-struck by the part played by such machines in multiplying production in various types of industries. Look at your surroundings and find out the difference in production caused by the use of capital. During the agricultural operations you will see that a farmer using an ordinary plough will be able to cover only about half-an-acre per day whereas, a farmer with a tractor-plougher will be able to plough about ten acres per day.

Is it not a paradox then to see that most poor countries of the world which have realised the importance of capital accumulation for their economic development are still lagging behind in the matter of capital accumulation? It is not mere wishes that bring into existence capital; capital accumulation is the result of deliberate and determined efforts on the part of countries which possess the required will and grit, the foresight and vision of the future, the patience and perseverance, and the

habit of saving and sacrifice. Capital accumulation is possible only through the savings of the community. Savings mean sacrifice of present consumption for the sake of greater consumption in the future; also it may mean producing capital instruments and equipment instead of consumption goods in the present. If a country uses the whole of its resources for the production of consumption goods it can have no addition to its capital; alternatively, if the whole of the resources are used to produce only capital goods, then consumption goods cannot be produced and there will be a shortage of such goods causing discomfort and decline in the current standard of living. Therefore, the best course is to adopt a golden mean between consumption and capital accumulation so as to achieve maximum welfare. Countries which have achieved a rapid economic development in recent decades have set aside about a quarter of their annual output for capital accumulation. This is how the capital accumulation of these advanced countries has grown at a rapid rate; their productive potential has thus increased year after year in recent years.

The above experience of the advanced countries is a goods lesson for all countries which wish to develop. All these countries may need to sacrifice a part of their consumption for the sake of capital formation. There is no other way of increasing the internal capital of the country. But, if a country is unable to reduce or sacrifice its consumption for the sake of saving and capital formation, then the only other way open to it to obtain the much-needed capital is to borrow capital from other countries. Such borrowed capital could be utilised to multiply production. A part of the resulting surplus production could be used to repay the capital loan in easy instalments over a period of years. In countries like India, it is this borrowed capital which has greatly helped the economic development of the country. We, in India, have received during the past three decades of planned economic development massive foreign capital loans and other aid from countries like the U. S. A., England, France, Germany, Scandinavian countries and the U.S.S.R. We were given such aid in the form of food-grains, machinery, raw-materials and money-capital. You have learnt details about these in your course on the 'Indian Economy'.

When we estimate the actual amount of capital accumulation that has taken place during a year in any country, we may have to carry out a correction by way of depreciation of capital. Normally, the value of aggregate capital formation or accumulation during a year is estimated as the total amount of investment made during the year. However, when capital equipment is used in production during the year a certain amount of capital is worn out or depreciated. Therefore, we have to deduct from the aggregate addition to capital that part of it which undergoes depreciation during use in the year. Only after deduction of this depreciation, we could arrive at the net addition to capital or net capital formation.

Next, let us turn to the interesting question about capital accumulation, namely, who are the people who undertake capital accumulation? The class of people who are responsible for capital formation are different in the different economic systems. In capitalist societies, capital formation or investment is determined moslty by private individuals who are producers of goods or entrepreneurs (who promote and organise new businesses). Private industrialists decide by how much they should increase the investment in their businesses each year. How do they decide on such increased investment? They make their decisions on the basis of an economic calculation. They first estimate the cost of building, say, a machine which they intend to put to use in production; they then estimate the probable future returns which this machine is likely to yield over its entire life-time. If the sum of the expected future returns on the machine is greater than the cost of the machine, it will be profitable to build or buy the machine. Therefore, the entrepreneur, will be eager to undertake this investment. If, on the other hand, the return is expected to be smaller than the cost of the machine, the investment will bring loss, and hence it will not be undertaken.

In socialist economies, the people who undertake capital accumulation are not private individuals or businessmen but the State itself. As all the means of production are owned by the state and managed by it in the socialist economy, it is the state

machinery which decides on capital formation. There is the Planning Commission to allocate resources for various uses and according to its decisions investment will be undertaken in the various sectors of the economy. There is a major point of difference between the capitalist and socialist economies in deciding upon investment. Whereas in the former profitability of investment is the only consideration, in the latter the chief consideration is the welfare of the masses or people's welfare.

Lastly, let us see who are responsible for capital formation or investment decisions in the mixed economic system. In the mixed economy, we have already seen that there is a public sector and a private sector. Therefore, investment decisions in the public sector are made by Government and in the private sector by private individuals and businesses. There is also a planning body which co-ordinates decision-making in the different sectors of the economy and ensures a satisfactory progress in capital formation in the country.

We should point out that whatever the type of the economic system, the ultimate test of the desirability of investment in a particular capital project is the profitability of investment. Even in socialist economies when a decision has to be made among a number of alternative investment projects it is the test of profitability that has to be applied, namely, whether the expected yield from investment will be more or less than the cost.

## ENTREPRENEURSHIP

We have so far explained the characteristics of three of the four basic factors, namely, land, labour and capital. Let us now explain further the fourth basic factor, namely, entrepreneurship. For any kind of production, land, labour and capital may have to be brought together and made to co-operate in production. But these three factors will not by themselves come together or combine to undertake production. As none of them will be prepared to undertake the responsibilities of organization and execution of the productive processes some other factor is needed to perform this task. Land, labour and capital will only be prepared to supply their services for a price and, that is all;

Therefore, the services of promoting and organizing the business, executing production plans, and selling the finished goods, most of all, taking the risks natural to business will have to be provided by some other factor. The factor which undertakes to provide these services, including risk-taking, is known as the entrepreneurial services or the factor of entrepreneurship. Decisions like (a) how much of land, labour and capital should be combined to produce the commodity? (b) how much of the commodity is to be produced? (c) where and at what price is the commodity to be sold? will have to be made by the entrepreneur for example, if rice flour, sugar and ghee are poured into a pot they do not by themselves become bread or sweetmeat. To combine them in the right proportions and shape them into the desired finished product, a cook is required. Similarly an entrepreneur is needed to organize and control the process of production, combine the factors of production in the right proportions and take the risk of loss that may have to be met with if things go wrong.

The entrepreneur is so called because he undertakes responsibilities which are different from those which the other factors of production are called upon to shoulder. For example, the land-owner undertakes to supply the services of land and accepts a price in return, namely rent; nothing more and nothing less. Similarly, the labourer is content to supply his labour for a wage; the capitalist is willing to supply capital for a rate of interest and that is all he does. In other words, these factors are willing to offer their services for a contractual income (as per contract). Their incomes are agreed upon in advance and they have a claim for these assured rewards or remuneration. But the reward that the entrepreneur is entitled to get is not such an assured reward; it is not a contractual income. The entrepreneur is not an employee to get a contractual payment. He is his own master; the business is his; he employs all other factors and pays them; if there is anything left after the payments to the other factors have been made, it is his profit; if, on the other hand, nothing is left after other factors have been paid, it is again his loss. The entrepreneur launches his business in the hope of earning a profit.

But profit or loss is a future occurrence and he cannot foresee them accurately when he starts his enterprise. Therefore, he has to be prepared both to enjoy the profit when it is available and suffer loss when it becomes unavoidable. Other factors have to be paid their remuneration irrespective of profit or loss. This is the risk involved in the function of the entrepreneur. He is called the entrepreneur because he has to boldly undertake new ventures with enterprise. One who is unwilling to undertake such risky ventures, i.e. to take risk, cannot be called an entrepreneur. Those who are afraid of or unwilling to take risk can never become entrepreneurs. Such people will seek employment under others and work for a secure salary or wage. Such people will form the majority in any country; those who come forward to take risk will be a minority i.e. their numbers will be small.

Men who come forward to organize business and also undertake responsibility for the success or failure of the business will be only few in any country. Such people who possess confidence and courage, ability and judgement to launch new enterprises and take risk are very much needed in every country. Without them new enterprises or businesses will not come up in any country. The greater the number of able entrepreneurs in a country, the greater is the possibility, of industrial and economic development in the country. The countries of Western Europe, the U. S. A. and Japan are particularly lucky in this regard as they possess armies of entrepreneurs. These entrepreneurs have contributed to the rapid economic development of their countries. On the contrary, in countries like India which have yet to develop the entrepreneurial class is small. Due to insufficiency of the number of entrepreneurs in developing and under-developed countries, economic development in these countries is rather slow.

The reward that is offered to entrepreneurs to persuade them to take risk and launch new enterprises or expand the existing ones is 'profit'. Society is willing to offer the attractive reward of high profits to those who have to dare and do, without being deterred by the prospect of loss. To those who possess

the entrepreneurial ability to pioneer new enterprises and achieve success, society offers rich rewards by way of profits. Hence profit provides the much needed incentive to risk-taking by entrepreneurs. It is profit which induces businessmen to set up businesses and contribute to economic development. Profit is indeed like the green grass held in front of the horse to induce it to gallop forward.

Most of the risks which entrepreneurs have to face are due to the changes which keep taking place in the world around us. If there is no change in society, there will be probably be no risk for businessmen. But the world is changing and changing quickly and unexpectedly. The habits and customs of people and their tastes and preferences undergo changes from time to time; the incomes of people also change; population too changes. Accordingly, the demand for various types of goods and services change almost continually. As new goods and new inventions take place, old goods go out of the market. People are influenced by new temptations and fashions.

In the domestic industry system of olden days, goods were produced by artisans in small quantities according to demand or on demand. But today, large business corporations anticipate the demand for goods many months in advance and layout plans for production on a large scale so as to reduce cost of production and increase sales. But one cannot predict in advance how much of the mass-produced goods will be sold in future or at what price they could be sold. Further, even the techniques of production change from time to time. Discovery of new production techniques bring about a reduction in the cost of production. This forces producers to have necessary changes made in their production processes in their factories. When all these changes are taken into account the functions of the entrepreneur and his responsibilities are always surrounded by many risks. His decisions are based on anticipation of the future, and his actions are faced with uncertain consequences. Uncertainties regarding future demand, future prices, future

techniques of production and all other changes brought by the passage of time have to be borne by the entrepreneur. The reward of profit is, therefore, quite necessary to induce the entrepreneur not only to take risks which can be calculated but also to bear uncertainties which cannot be calculated. Risk-taking and uncertainty-bearing are functions which none other than the entrepreneur himself can undertake.

**Large-scale Production**

We will find it interesting to examine the advantages and disadvantages of large-scale and small-scale production. We frequently come across large factories with mass-production of goods and also small factories with limited outputs of goods. What is the difference between these two categories? We shall presently answer this question.

Till about the beginning of the 18th century goods were produced in what are known as 'domestic industries'. The producer-artisan made the goods at his home with the raw materials supplied to him by the entrepreneurs or merchants. The latter also collected the finished products from the artisans and paid them their wages. These products were then taken to the market and sold by the merchants for a profit. For example, the merchant-middleman will supply to the weaver the cotton yarn he requires for weaving cloth and, after due interval, collect the cloth paying the weaver his wages.

In the 18th century the industrial revolution took place in England. As a result, innovations in techniques and methods of production were introduced in almost all the major industries of England. At first spinning and weaving in cotton and wool saw changes; later changes took place in the engineering industry, chemical industry and transport. Old techniques and methods gave place to new. Steam power was discovered and steam-engines were built and used in various industries. With the use of steam power, instead of water power or manual power, which had limitations, the rate of production increased many-fold. The rate of output per day and per man increased

enormously. These new developments enabled industrialists to adopt methods of large-scale production instead of small-scale production. It was possible now to assemble hundreds of workers in the same building or place and carry on manufacture of goods on a large scale due to the availability of steam power to drive machines. Large scale production made possible division of labour in which each worker is assigned a single task or a small part of the work. He is made to specialise in it by repeatedly doing the same work. Instead of every worker being engaged in doing all items of work in producing the commodity, under division of labour, each worker does only a small part of the total production process. As he does the same work again and again he becomes expert in doing it and his output per day or hour increases very much. Thus division of labour increases enormously the daily output of the factory or workshop. Therefore, the unit cost of producing the commodity falls much as the output of each worker increases manyfold.

Division of labour in industry has come as a boon to large-scale production. The great advantages of such division of labour were first observed and described by Adam Smith in his book 'Wealth of Nations' in 1776. He describes how division of labour is illustrated in the production of the ordinary pin. Under the old simple method of making pins, the entire process of making pins was carried out by each worker beginning with drawing the wire and ending with the packing of the finished pins. But once division of labour was adopted the whole of the production process was divided into small parts and the task of performing each one of such small parts was entrusted to a separate worker. Thus the drawing of the wire, the cutting of wire into small pieces, the sharpening of the ends, the shaping of the heads, polishing and packing of pins were all separated and each worker was entrusted with one of these tasks. By repeatedly performing the same task each worker attained a high degree of skill in his work. The result was that whereas, under the old method, each worker could turn out, say, only a hundred pins a day, with the division of labour, the output per head increased to, say, a thousand or two thousand per day. What a miracle!

Another instance of the wonderful result of division of labour in expanding output is provided by the enormous increase in car production in the Ford Car Factory. Henry Ford, the automobile genius of America aimed at the laudable objective of making a new model car the price of which will be so cheap that even the ordinary American can own a car. To bring down the cost of production of cars, Ford designed an assembly-line which will provide the fullest scope for practising division of labour. The assembly-line of many kilometers length will be the platform on which a conveyor belt will be slowly moving. The various parts of the car which will be separately manufactured will be brought to various points on the assembly-line ready for being assembled. Workers will also be placed on either side of the conveyer belt at appropriate points. Each worker, who is trained to do a particular part of the assembling, and who keeps ready at hand the particular parts of the car to be assembled by him, does his part of the work quickly and precisely when the conveyer belt passes him. At the starting point of the assembly-line a few workers will place the chassis of the car on the conveyer belt, working from either side of it. When the slowly moving conveyer belt reaches the next stage, a few workers will fit the wheels on to the chassis; at the next stage, the engine of the car, kept ready by a set of workers, is placed on the front of the chassis and fitted on; at a subsequent stage, the electrical system is installed by specially trained workers as the chassis moves on the conveyer belt. The next stage is the one in which the hood of the car kept ready descends from the roof of the factory and sits on the chassis; when the concerned workerss have completed the fixing of the hood, the car is almost complete for being driven away. A queue of drivers are awaiting the arrival of cars at the finishing end of the assembly-line and as each completed car arrives, a driver jumps into the driving seat and drives away the car to the parking ground. The manufacture of the parts of the car and their assembly are so planned and laid out on the basis of division of labour that one new car rolls out of the Ford assembly-line almost every five minutes. This miracle was possible not only because of Ford's genius but also because of the principle of the division of labour which he exploited.

Car production increased phenomenally due to this innovative method; car prices crashed as the cost of production was brought down to a fraction of its earlier level. Most Americans could thus buy and ride cars, which was only a dream in earlier decades before 1900. The average American gained a fast and comfortable individual transport; also his standard of living went up to that extent. This was the result of division of labour put to excellent work.

Let us now examine the particular advantages which division of labour confers on man-kind in the field of production:

1. Almost, the most important advantage of division of labour is the great skill and dexterity which workers develop by doing the same task repeatedly throughout. As a worker becomes an expert in performing his limited task, the time and effort taken to perform the task is very much reduced. Due to the speed and skill which he acquires, the worker can turn out a much greater output than he could without this technique. As a result, the output of goods in the country increases many fold and the country's wealth production reaches a new high: For instance, a typist acquires speed and skill in typing as he goes on doing typing work repeatedly. His turn out per hour will also increases with his specialisation in typing. On the other hand, one for whom typing is a hobby will not be specialising in it by doing it constantly. Hence his speed and skill are likely to be at a low level and much lower than that of the specialist.

(2) Another great advantage to be gained through division of labourer is the great saving in time effected. If the same labourer has to perform the diverse items of work connected with production of a good he is likely to waste his time in moving from place to place to attend to various items of work. Further, as he shifts from one type of work to another he may also have to change his tools. This again causes loss of production time. In some cases, the worker may have to lose almost half his working time in this kind of shift. On the contrary, a worker who is assigned a single, simple task to perform need

not have to shift from place to place or change his tools so frequently. He thus saves time and spends almost his entire working hours on production activity. More time spent on production results in more production of goods or wealth.

Further, saving of time results also from another circumstance. As each worker under division of labour has to perform only a single simple task throughout, he needs only a short period of training, say, a few weeks to learn his work. But when a worker has to be an all-rounder, performing every task in production, he will need a long period of training to learn all items of work. For example, to train an artisan in all types of work in the electrical industries or in the machine tool industries, it may take a few years. This is too long a period for a worker to spend in training.

(3) Everyone has a natural taste and aptitude for a particular type of work. It would therefore be best to find out these tastes and aptitudes of individuals and assign them such type of work for which they are best fitted in nature. Then they will not only be enthusiastic in doing their work but will become experts in those lines. By exploiting these natural qualities and aptitudes of workers in production, output can be maximised. This again is an advantage of division of labour. For example, there are some men who are good at hand-work or handicrafts; some others are good in brain-work. Some may like to do work indoors; others revel in outdoor work, running about places. Some will do work fast, others will be slow in working. By studying all these varied qualities and aptitudes of people, we can put them on work most suited to them and make them specialise in particular tasks on the basis of division of labour. In other words, division of labour enables us to get the most out of people's aptitudes and thereby achieve maximum possible production. This is a great opportunity to increase production provided by division of labour.

(4) Yet another notable advantage of division of labour is the opportunity it creates for the introduction of machinery in various processes of production, standardized by division of labour. It paves the way to introduce machines in two ways.

First, through separation of tasks and specialisation by workers, we have seen that division of labour increases enormously the production of individual components of the commodity. If machines are to be used profitably, they must be fully utilised. That means there must be sufficient volume of work to engage the machines fully. Otherwise the cost of production will be high. Such opportunity to engage machines fully is provided by the large-scale production methods made possible by division of labour. Secondly, the use of machines to an increasing extent in production has been due to the substitution of machines for men. Wherever the work movements have been reduced to simple, repetitive operations which appear mechanical they are fit to be handed over to machines. Through division of labour, many production processes have been divided into small parts which could be performed by individual workers through simple repetitive operations. Therefore, engineers who observed these simple repetitive operations under division of labour began to build machines to perform these repetitive items of work. It appeared cheaper to have machines perform these operations rather than men as machines could work at greater speeds and for longer hours. In this way, division of labour has paved the way for the introduction of more and more machinery in production.

We have explained so far the great advantages of division of labour. But we should not lose sight of the disadvantages and difficulties created by the introduction of division of labour in production. Let us look at these problems now. Under division of labour, the work performed by each worker affects the work performed by hundreds or thousands of other workers. For instance, if in a spinning mill a few workers working in a certain preparatory section stop work or go on strike, hundreds of thousands of workers working in the other sections will not be able to continue production. This is because it will not be possible for other workers to substitute for the workers on strike as the work in each section is highly specialised. In other words, it wil not be easy for workers to switch from one section to another without retraining. Another example will illustrate this difficulty under division of labour. If bus drivers in a city

go on strike, it will not be easy for workers doing other work in the bus transport to take over as drivers without training. The work of the driver is highly specialised.

Another disadvantage caused by division of labour is the narrow specialisation acquired by the workers. As each worker is trained to do only one simple task, he specialises and becomes an expert in this task. Therefore, he is thrown out of employment, it will not be possible for him to switch over to some other employment unless he undergoes retraining for a new job.

There is also the charge against division of labour that it converts man into a machine. In the eariler method of production each worker or artisan, engaged in the production of a commodity, himself carried out the entire process of production from beginning to end. He himself completed each and every aspect of production. When production is completed and the commodity comes out as a finished product, the worker who took the entire responsibility for its production felt a thrill as the creator of the product. He was proud of his product–when others admired his product he felt extremely happy and rewarded. For example, the carpenter who has produced a table, all by himself, a sculptor who has carved out of a stone-hill a beautiful temple, an architect-builder who has brought into existence a wonderful auditorium or hall by planning and executing every detail himself, and a metal worker who has conceived and shaped a beautiful work of art (like the Thanjavur plate) will, on the completion of their creations, feel the pride of original creators and enjoy a delight in the fulfilment of their dreams. But this pride and delight are denied to a worker in a factory with mass-production of goods. Each worker in the factory is responsible for only one small part of the production of the finished product. He cannot even identify his contribution to the finished product as it comes out of the factory. He works like a machine doing the same small task allotted to him throughout his life and he has nothing to be proud of nor to be delighted about in his work. His working life becomes dull and monotonous, without change or cheer. He has no way of displaying his taste and skill in his product as he does not produce the whole of the product

himself. His mind and outlook become restricted and he is deprived of the cultural and psychological satisfaction due to a creative artisan.

However, we will not be able to throw overboard the principle of division of labour from our manufacturing industries today. Though we may condemn it for its evil effects on the workers, we cannot reject or give up the great advantage of mass production of goods in large factories at cheap cost to satisfy the needs of the people. There will be no great expansion of outputs, no big growth in the production of wealth and no substantial improvement in the standard of living of the masses without the adoption of division of labour in all spheres of production. Modern technologies, large scale production, near-full employment, and a growing income will become impossible without division of labour. We cannot have the cake and eat it, as they say. We have to choose between division of labour with all its great advantages or its absence with small outputs and higher prices for goods. We cannot have both!

## TYPES OF BUSINESS ORGANIZATIONS

You should know the meaning of a business firm if you are to understand the nature of business organisations. A firm in economics refers to a decision-making unit in business. In other words, it is a unit of control in business. A way-side tea shop or a petty grocery is as much a firm as a million-rupee super-market or a billion-rupees multi-national company. The common feature of all these organistions is that each of them is an independent unit of control or an enterprise capable of making its own independent decisions. A modern business or banking company with an attractive building, costly furniture, air-conditioned office and a fascinating name-board is a firm; so also is a petty enterprise with cramped space, clumsy furniture and a cracked nameboard, provided it makes independent decisions in all its business matters. Whether it is a gigantic car factory turning out hundreds of cars per day, the railway enterprise managing large net-works of railways. through-out the country, the Tata Iron and Steel Company of

India which produces mountain heaps of iron and steel, all these are called firms not because of their giant size but because each one of them is a unit of control. As against these giants, there are tiny firms like the small farm of a peasant who raises tomatoes, the small restaurant serving coffee and eatables, the flower stand, or the newspaper stand each of which is also separate unit of control. It is essentially the independent decision-making unit that forms a firm, irrespective of size, the amount of capital or the spread of the activities.

**Classification of Firms**

In general, firms are classified on the basis of their legal organisation, distribution of the capital ownership and the method of making decisions. From this point of view firms are classified into the following categories :

(1) Sole proprietorship firms, (2) Partnership firms, (3) Joint-Stock companies, (4) Co-operative societies (5) Government companies or Public enterprises.

Let us examine the features of each of these organisations one by one :

**Sole Proprietorship Firm**

This is the earliest and simplest form of business organisation. In this type of business organisation, there is a single owner and he himself makes all the decisions of the firm. He bears entirely the risk of his business, i.e., he alone enjoys the profit or loss, if any. If the business becomes bankrupt, he is personally responsible for the entire debt of the concern.

**Partnership Firm**

There can be two or more partners in the partnership firm and they jointly own the assets. They take decisions jointly and bear the risks jointly too. In other words, the responsibility is shared by the partners. In case of bankruptcy, each of the partners will be responsible to the full extent of the liability of the firm.

However, there are certain disadvantages in the sole proprietorships and partnerships which we should know.

The sole proprietorship firm will often suffer from lack of capital for further expansion of the business. Besides, a single person has to bear the whole of the risk and suffer the whole of the loss, if any.

In the case of partnerships, any one partner can act as agent for the others and involve the firm in unnecessary loss and excessive liabilities. Further, in the case of sophisticated businesses, no one partner can fully supervise the activities. But he has to bear responsibility for the wrong decisions of the other partners. Besides, in case of bankruptcy, the liabilities of the firm will have to be met by the partners singly or jointly. If the other partners do not have property the partner who owns property will become liable to the full extent of his property. In other words, there is no limit to the liability of individual partners and it is limited only by the property owned by each of the partners. This is known as unlimited liability and is a drawback of partnership.

Another disadvantage of the partnership firm may be noted here. If one of the partners dies or retires, the entire partnership is to be treated as dissolved under law. A fresh partnership agreement has to be entered into between the surviving partners. A similar procedure has to be adopted even if a new partner is to be admitted.

**Joint-Stock Company**

The joint-stock company is the most important form of business organization throughout the world today. This is because of its great advantages. In fact, all the disadvantages of partnership are absent in the joint-stock form of organisation. In a partnership firm the capital contributed by the partners will be limited and it will not be sufficient for the expansion of the firm. But in joint-stock companies, which is an association of hundreds of individuals, called share-holders, a large amount of capital can be raised. The capital of the company is raised by the sale of shares and bonds. Each shareholder is entitled to a share in the profit of the company called 'dividend'. As anyone can buy the shares of the company and enjoy the dividend, large numbers of people come forward to buy shares in the

company. There are no restrictions for individual investment in the shares of the company except that one share enjoys only one vote. Further, the shares are freely transferable from person to person. Due to this advantage many business firms which wish to grow adopt the joint-stock type of organisation. Through this organisation they can collect any amount of share-capital and most of the giant business firms in the world have grown to their present size only through this method.

A great advantage in the joint stock company which is not available either in the sole proprietorship or partnership firms is the feature of 'limited liability' which is part of the legal structure of the joint-stock model. A share-holder is liable to the company's debts only to the extent of the value of his share and no more. The legal safe-guard by which one's liability is limited to the extent of his share has attracted large numbers of people to buy the shares of the joint-stock companies. For example, if an individual buys a share for Rs. 10 in such a company, and the company becomes bankrupt, his liability to repay the company's debts is limited to Rs. 10/- only, i.e. his share capital. Whereas in sole proprietorship and partnership the liability of the members is unlimited, in the joint stock company this liability is legally limited.

Another notable advantage is that the joint-stock company is a legal personality for purposes of legal proceedings. As it is treated as an independent legal person, it is different from its share-holders. It enjoys all the rights of an independent person; it can sue others and be sued by others. Further, the company has continuity of life unlike the sole proprietorship or partnership. The company continues to exist in its original form irrespective of the change of shareholders or even the death of the shareholders. In other words, the company is different from the shareholders. As the number of the shareholders will be large in a joint-stock company, all of them will not be able to meet together to take decisions. Therefore, the shareholders elect at an annual meeting a board of directors for the company who are authorised to act on behalf of the shareholders in managing the company and taking decisions.

We should note the great social advantage which the joint stock form of company organisation is capable of offering through large-scale production of goods and reduction in the cost of production of commodities. Gererally, sole proprietorship and partnership firms will engage themselves in small-scale production of goods and will not be able to undertake large-scale production due to limitations of capital and management skills. In many fields of modern industry large-scale production is almost a necessity as modern technology and methods of production are more suited to large-scale production than productlon on a small-scale. To employ large-scale production methods, large amounts of capital will be needed to buy huge machines and adopt innovative techniques. This is possible only in the joint-stock form of organisation as almost any amount of capital could be mobilised through share capital. Also, large-scale production results in falling cost of production due to the law of decreasing costs. This is a great boon to society and it is able to enjoy these benefits only because of the joint-stock form of organisation.

Lastly, mention should be made of the peculiar advantage enjoyed by the joint-stock company in spreading risks thin over hundreds and thousands of share-holders. In the sole proprietorship and partnership firms, the entire risk of business is to be borne by a single person or a few persons only. This may prove too much for the owners. But in the joint-stock company, the owners are the share-holders and their number being quite large the risks of the business are shared by them all, thereby reducing the amount of risk to be borne by each share-holder to a negligible level. Further, the liability of the shareholder being limited to his share capital, he will not be hit hard even if the company incurs losses or goes bankrupt. This enables the joint-stock company to undertake boldly large and risky ventures which the sole proprietor or partners of a firm will never be able to undertake. The share-holders of the joint-stock companies also do not mind the company launching into new and risky ventures as, in case of loss, none of the share-holders will be called upon to bear the loss exceeding his own share-capital. It is this unique characteristic of the joint-

stock organisation that has made it peculiarly suited for undertaking risky but necessary production projects which will benefit society at large. But for this, many of the pioneering ventures (like oil exploration) would not possibly be undertaken as the capital required and risks involved may be truly gigantic. Society is able to reap these great advantages through the large modern industrial and business undertakings only because of the facility of the joint-stock form of organisation.

**Co-operative Society**

The Co-operative form of business organisation is quite different from the forms of organisation we have dealt with so far. A number of persons who have a common economic objective of satisfying a paticular need at the minimum possible cost come together to form a Co-operative society. The Co-operative society has no profit-motive but only the motive of service to its members. In fact the co-operative society is organisation of the members, for the members, by the members. All members of the co-operative society enjoy equal rights irrespective of the number of shares owned by each. In other words, instead of one vote for one share as in the case of the joint-stock organisation, in the co-operative society, one man one vote principle is followed. In this sense, the society is truly democratic. Let us now have a close look at the features and advantages of the co-operative form of business organisation.

There is no room for private profit or exploitation in the co-operative society. If there remains a profit at the end of the year, it is shared by all its members either according to the individual share capital subscribed or the individual participation in the activities of the society.

Started originally in England and Italy to free the workers, peasants and other weaker sections of people from the vested interests and exploitation by the rich and powerful (like traders, money lenders, industrialists and employers), it has now spread throughout the world to all spheres of activities. It is today a veritable giant shielding the poor and weak from oppression and exploitation everywhere.

Co-operative societies are today found in service in diverse fields of activities whether in production of goods, distribution and sale of goods or the provision of credit for productive purposes. They serve the common people better than private business organisations. Whether it is grocery, food-stuffs, textiles, and other consumer goods, or capital goods like building materials, agricultural inputs like seeds, fertilisers and tools, the co-operative societies make them available to the members at reasonable prices, in good quality and in correct weight.

Today, Co-operatives play a dominant role in the production and supply of milk, food, fish, fruits and vegetables; also in the manufacture and supply of cloth, mats, baskets and furniture items.

One of the most important fields in which co-operative societies play a pre-eminent part today is the provision of credit to members at low rates of interest for production purposes. Even those who have neither property nor power, like the small farmers, artisans and those engaged in cottage industries could very well obtain loans from the co-operative societies at low rates of interest. But the commercial banks will ordinarily either not give loans to these categories or will charge high rates of interest on the loans. The co-operative credit societies are the only champions of small borrowers and they protect these weaker sections of the people from the clutches of the money-lenders. In this sense, the co-operative societies are the great deliverers of the poor and needy; relieving them from gloom and misery, slavery and bondage.

You should now be eager to visit the co-operative society in your village or town and get to know the method of functioning of this people's society. What is more, you should be eager to become in the near future a member of one of these societies! Also, society at large will be happy if you would venture, when the time comes, to take up the leadership in one of the co-operative societies and contribute to the welfare of the members most of whom may be poor, illiterate and ignorant. You may probably jump at this great opportunity that awaits you !

**Government Enterprises (Public Enterprises)**

We find today business firms owned and operated by government in all countries of the world. Whether in the economically advanced countries of Europe and America, or in the developing countries of Asia, whether in the capitalist countries or socialist countries or the mixed economies, government enterprises have come to occupy an important place. They are otherwise known as public sector enterprises.

Most Governments set up their own enterprises to produce goods required to meet the demands of their departments. For example, defence industries are set up by Government to meet the needs for arms and ammunition required for the defence of the country. Similarly enterprises are set up by Government to produce forest products from Government forests.

Another area in which Government enterprises are increasingly created is the production of essential goods of mass consumption at low prices intended to satisfy the wants of the poorer sections. Very often, such industries in the public sector receive Government subsidies so as to lower the selling prices of these products and bring them within the reach of the poor. Sometimes, these products are sold to the poor even below their cost of production through subsidization in the interests of the poor. Examples of such products are cheap textiles, cheap drugs, cheap electricity, free or concessional education through scholarships, subsidized or free hospital and health facilities. The Government of India too has set up a large number of public sector industrial units with these objectives.

Yet another type of public enterprises comprises of industries which are conducted on commercial lines just like private sector enterprises. These government enterprises are also expected to earn profits through the production and sale of goods which are in short supply. Certain goods may not be produced in the private sector and even if they are produced the quantities produced may not be adequate to meet the prevailing demand. This may be due to private enterprises not coming forward to produce these goods either due to poor profits or insufficiency of private capital to undertake large

projects. Under these circumstances the Government may decide to fill the gap as a matter of duty to the consumers of these goods. This is especially so in developing economies like ours where both capital and entrepreneurship are scarce. Hence Government may consider it appropriate to step in the interests of the people. Sometimes, private producers may artificially restrict output so as to force the price up and reap high profits. Here too Government enterprises can enter the industries concerned and seek to increase the supplies of the concerned goods in the public interest. In other words, Government enterprises may offer a keen competition to the existing private producers by selling at a lower price, if necessary. Examples of goods which public enterprises undertake to produce in the interests of the common man are textiles, cycles, electronic goods, watches and the like. An example of such a public enterprise in Tamil Nadu is the State Government owned TANSI (Tamil Nadu Small Industries Corporation) which today produces and sells goods of many varieties at reasonable prices like leather footwear, furniture items in wood and steel and building components.

# 9. FACTOR REMUNERATION

In the agricultural society of early times production and distribution of wealth and income were rather simple. Each peasant farmer enjoyed the whole of the output produced by him on his land. He was not required to share the output from his land with anyone else, barring his expenses of cultivation. As the land he cultivated, the capital he invested and the labour he spent in cultivation were all his own, he need not pay any rent for land, any interest on borrowed capital, or any wages for labour.

With the passage of time, the methods of production and the pattern of ownership of the means of production have undergone many changes. Today, the production process is highly complicated, specialised and commercialised as it is profit-oriented. The owner of land hires it to a tenant cultivator and is content to receive the rent for it. The capitalist lends his savings to those who wish to borrow money for undertaking business and receives interest in return. The entrepreneur borrows capital, hires land and labour and undertakes production for profit; he pays out of his gross income the remuneration due to other factors of production for their services and enjoys the profit which remains.

We see today everywhere the co-operation of the different factors of production in any productive enterprise and their combined efforts resulting in the production of an output. When an entrepreneur comes forward to undertake the production of a commodity, he has to bear the full responsibility for the enterprise. The profit or loss of the enterprise has to be borne by him as he makes all the decisions. It is he who hires the labour, capital and other factors which are required for production. Therefore, these hired factors cannot bear the responsibility for the profit or loss of the business. The entrepreneur has to pay the hired factors their remuneration as agreed upon and himself enjoy the remainder of the income, if any. Thus out of the gross income of the business the shares of the hired factors are duly paid as agreed upon in the form of their respective remuneration; the remainder goes to the entrepreneur as his share, namely profit. This sharing of the income by the

various factors of production is known as income distribution in economics.

Distribution of income is treated as an important part of economics and has always been considered a matter for serious concern and discussion by economists. The pattern of income distribution and the question of what constitutes a fair distribution of income among the various factors have engaged the attention of economists from early times. They have raised keen controversies and many interesting questions which are yet to be solved. The term distribution means something else in commerce and trade, namely, the distribution of goods by the producer or seller to the consumers through wholesalers and retailers.

In this Chapter, we will try to understand a few interesting questions like how to estimate the wealth that is annually produced in a society in the form of goods and services; what factors of production can claim a share in this total wealth produced; and what determines the respective shares of the claimants, namely, those factors which have participated in the production of wealth.

It is not useful to consider the sharing of the product of the labour of one individual or one class of individuals. But, it will be necessary and appropriate to enquire how the wealth produced by a society as a whole is distributed among its members who have contributed to its production. We can imagine that all the various goods and services produced by all people in the country throughout the year are poured into a huge reservoir or receptacle. This collection of total output of the community may be called its national or social wealth.

## WAGES

We can illustrate the principle of marginal productivity with the help of the following Table : We have shown in the Table how the total output of, say, potatoes goes on increasing when the number of labourers working on the potato farm is increased step by step. At the same time, it may be seen from the table that with the addition of each worker to the labour force there is an addition to the total output. This addition to

the output is due to the employment of the marginal labourer at each stage. This additional output is known as the marginal output. This marginal output at each stage has been shown in the last column of the table. Let us now take a close look at the table below. What deduction can we make from this table?

TABLE 9–1

| No. of Labourers | Total output of potatoes in physical (in kilos.) quantity | Average output per man (in kilos) | Marginal output (in kilos) |
|---|---|---|---|
| 1 | 100 | 100 | — |
| 2 | 200 | 100 | 100 |
| 3 | 270 | 90 | 70 |
| 4 | 320 | 80 | 50 |
| 5 | 350 | 70 | 30 |
| 6 | 360 | 60 | 10 |
| 7 | 364 | 52 | 4 |
| 8 | 364 | 52 | 0 |
| 9 | 360 | 40 | — 4 |
| 10 | 350 | 35 | —10 |

When we cultivate a plot of land with potatoes, by increasing only the number of labourers employed on the farm, keeping all other factors constant, what will be the pattern of output? If you look at the table, it is clear that when only one man is employed on the farm, the output is 100 kilos of potatoes. When a second man is added, the output increases to 200 kilos. This means that the addition of the second man has added 100 kilos to the total output. This is the marginal product of labour when two men are employed. This is shown in the last column of the table. As more and more men are added, you will see in the table that total output goes on increasing upto the seventh man. In the next stage, from the 8th to the 10th man, total output as well as marginal output go on falling. This is because when the number of the labourers is increased steadily, there is no increase in the amount of land. Hence, the amount of land available per man becomes less and less and the proportion of land to man decreases. This causes diminishing marginal product for labour. When the 8th man is added, the

marginal product is nil, that is, there is no addition to the total product. The addition of the 9th and 10th men make the marginal product negative (the total product indeed falls).

It is on the basis of the above analysis of the behaviour of the marginal product that economists have found the solution to the problem of determination of the reward for labour, namely, wages. This applies to the rewards of all other factors too. If you look at the table once again, the following will be clear to you : When only one man is employed, his output is 100 kilos of potatoes. Therefore, he can be paid a wage which does not exceed 100 kilos of potatoes. If the wage were higher than 100 kilos, it will be a loss to the employer as in that case, he has to pay out more than what he gets as return on the man he employs. The employer will not be willing to employ the man if this were so. In fact, no employer will come forward to employ another man who brings on output or return which is less than the wage to be paid to him. Similarly, the highest wage that the employer can pay to the second man when he is taken in, is 100 kilos, as he brings in a return of 100 kilos only. The wage that the third man can be paid is not more than 70 kilos; For the fourth man it is 50 kilos; the fifth man, 30 kilos. As more and more men are added, you will see that the wage that can be paid to the subsequent men go on decreasing as their marginal products are falling. You would thus be able to understand that the wage that can be paid to a worker cannot exceed his marginal product. When the eighth man is employed, the marginal product is nil and, therefore, the employer will not employ him as he brings no return. Similar is the case with the ninth and tenth men or any one in excess of the seventh man. Therefore, employment will be restricted to the seventh man and no more. The wage of the seventh man will be not more than 4 kilos of potatoes as the return from him at that stage is only 4 kilos, i.e. the marginal product of labour at that stage when seven men are employed is only 4 kilos.

We have now to be clear about the wage rate which will be applicable to all the seven men when only seven men are employed. It is to be assumed here that all the seven men

employed are of equal ability as far as their work on the land is concerned. There cannot be much difference between them as they are all accustomed to do this kind of agricultural work in which they are employed. In other words, one man is as good as another in this unskilled or semi-skilled work. Hence, they cannot be paid different wages though they are taken in at different stages and, consequently, their marginal products too are different. What then will be the common wage-rate payable to all the men employed on the potato farm? As we cannot pay each man a different wage according to his respective marginal product, the marginal product when the last man, namely, the seventh man is employed is taken as the basis for fixing the wage rate for all the seven men. In our example, the marginal product when seven men are employed is 4 kilos of potatoes. Hence the seventh man will be paid a wage not exceeding 5 kilos. If the seventh man is paid 4 kilos, all the earlier men will also be paid the same wage of 4 kilos as they all have the same ability, that is, they are all homogeneous in their ability. Thus the same wage of 4 kilos paid to the last man or the marginal man will be paid also to all the intra-marginal men. The marginal productivity of men when seven men are employed, namely, 4 kilos of potatoes, will thus determine the wage rate for all the seven men. This is known as the marginal productivity theory of income distribution.

The table and the explanation above make it clear that wage is determined by the marginal productivity of labour. Economists have found this principle valid not only in the matter of determination of wages but also in the determination of rent, interest and profit, the rewards for land, capital and entrepreneurship respectively. Hence the marginal productivity theory is today accepted by economists as the general principle of income determination in respect of all factors of production.

Marginal productivity is closely connected with the demad for factors of production. In fact the demand for a factor arises only because of the expected marginal product of that factor. The decision of the employer to employ an additional unit of a factor is very much dependent upon the marginal product expected from that additional unit. If, say, the ruling

wage in the market for a certain kind of labour is higher than the expected marginal product from it, the employer will not engage the factor. On the other hand, if the marginal product from labour is expected to be equal to or higher than the ruling wage in the market, then the employer will be ready to engage the factor.

Though the principle of marginal productivity is accepted as the general theory of distribution of income, economists have studied the special characteristics of each one of the four basic factors of production and their individual demand and supply factors. Taking into account these special features of each of the factors of production, economists have advanced certain special theories which seek to explain each of the four rewards, namely, rent, interest, wages and profits. As these special theories relating to each of the four types of rewards are many and complicated, we need not examine them here.

**Determination of wage, and demand for and supply of labour**

We have to understand the demand for and supply of labour before taking up the other aspects of wage determination. The way wage is determined cannot be much different from the way the prices of other commodities are determined in the market. In fact, wage is the price of labour and its price is determined by the demand for and supply of labour.

The demand for labour comes from the producers of commodities who wish to employ labour to produce commodities and sell them at a profit. Hence, an employer of labour will buy labour only so long as the price of labour is lower than what the product of that labour fetches as revence in the market. In other words, the demand for labour and the wage offered to labour depend on the demand for the commodities which labour produces and their prices in the market. It is this fact which we emphasized in our discussion of the marginal productivity theory of labour. We can, therefore, conclude that the demand for labour depends on the marginal productivity of labour or how much return labour will bring to the employer.

We may now ask what is the nature of labour supply. What determines the supply of labour in general? By way of answering

this question, we may have to discuss first the characteristics of labour. Marshall had made a good analysis of labour's characteristics as follows:

(A) The worker and his labour cannot be separated; his labour is part and parcel of himself. Therefore, when there is a demand for labour at a particular place the worker has to personally move to that place and provide his labour. In other words, if supply of labour is to be transferred from one place to another we have to make the workers themselves migrate to that place. The worker may not like to migrate to a new place, leaving behind his native place, his relatives and friends. He is tied to his native village or town or taluk or district by long tradition and memories of his forefathers who lived there. He is emotionally attached to his place and he finds it difficult to break this bond and to migrate to a new and unknown place which is full of uncertainties. This is why it is difficult to make labour mobile, and move it from a place where it is not needed to a place where it is required. To make labour move to a new place in response to demand, the employer in the new place will have to offer attractions and incentives. This is especially so in developed countries where there is more or less full employment. In these countries, the existing supply of labour has to be redistributed among various industries there being no unemployed labour.

(B) Labour is a highly perishable commodity and it connot, therefore, be stored. Labour has to be utilised then and there unutilised labour is wasted once for all. An hour of labour lost in the present is lost for ever. One cannot supply tomorrow's labour today nor can one utilise today's labour tomorrow. If today's wage rate is low, the labourer cannot reserve his labour for being sold in the future when the wage rate has risen. Hence the supply of labour cannot be reduced or increased at will in the short-run.

(C) The worker is the weaker party in negotiations with his employer. As labour cannot be stored and the labourer has to live by selling his labour instantly, he cannot withhold his labour even when the employer's terms are not satisfactory from

the worker's viewpoint. If, however, the labourer decides to go on strike, he cannot hold out for long as he has to forego his wages and starve. On the other hand, the employer need not worry about his living as he is affluent and has large assets. Therefore, the employer is not under pressure to yield to the worker. It is only in the recent decades that trade unions have become strong and have succeeded in mobilising labour to fight the employers with equal strength. Today labour unions are strong enough to bargain with employers as equals. Still, labour is not yet a match for the employers who command vast assets and wide political and economic influence. The strength and endurance of these employers is tremendously great when compared with those of labour which has no resources for prolonged action against even unjust employers.

(D) It is important to realise how difficult it is, if not impossible, to increase the quantity of labour in the short-run. Increased quantity of labour, besides overtime work, can be got only if the total number of the labourers in the country could be increased. This increase in the total number of labourers, beyond a certain number, cannot be brought about without an increase in the population. We know how increasing the population itself is a long process and takes years and years; the married couples will have to decide on having more childran; and a change in population cannot be quickly and easily achieved as and when desired. It is possible in countries like India with a large population and substantial percentage of unemployed to increase the supply of labour to any industry or industries which require it without withdrawing labour supply from other industries. But this will not be possible in developed countries where the populations are small and the percentage of unemployed is very much less.

It is clear, therefore, that it is not easy to adapt the supply of labour in any country to the changes that take place in the demand for labour from time to time. For example, industrially highly developed European countries like Germany and France, could not obtain increased supplies of labour within the country as required for their expanding industries. They have there-

fore resorted to importation of labour from other European countries where excess supply of labour is available. Unemployed labour from Italy is said to have migrated in large numbers to Germany where the demand for labour exceeds its supply. You are well aware of the large number of unemployed Indians who at present are migrating to the gulf countries where the supply of labour is less than the demand due to their developmental projects. Countries like Saudi Arabia, Bahrain, Quwait, Iraq and Iran import workers in large numbers from India and Pakistan only to fill the immediate gap that has arisen in these countries between demand for and supply of labour.

**What causes differences in wages between occupations?**

We know that wages differ from occupation to occupation even within the same country. For instance, the wages or salaries of clerks and accountants working in banks are very much higher than the salaries of similar categories of people working in government departments or private institutions. The wages earned by mine workers are generally higher than those paid to workers in manufacturing industries. The income earned by teachers are very much lower than those earned by doctors, engineers and company executives. The wages of an engine driver is more than twice that of a typist. You may be eager to know the causes which are behind these differences in wages.

A part of the differences in wages between occupations could be explained with the help of the marginal productivity theory of wages. Differences in the productivity of workers may account for some differences in wages. But a large part of the differences in wages arise because of the differences in the relative attractions, irksomeness, risks and responsibilities attached to the different occupations. These causes may be stated as follows:

(a) Wheather the job is pleasant or unpleasant in a particular occupation very much influences the level of wages in that occupation. The salary of teachers is generally low partly because teaching is enjoyable, gives satisfaction and peace of mind as teachers deal with the youth and matters such as know-

ledge, art and the values of life. In contrast, there are occupations which are definitely unpleasant or irksome and not many would prefer such employment. For example, people would generally dislike working in chemical plants as they have frequently to put up with smoke, fumes and even poisonous gases; they have to undergo discomfort like irritation of the eyes, skin, etc. during their work. That is why wages in such unpleasant or dangerous occupations are high so as to attract enough workers. For instance, the workers in the chemical fertiliser plants like the one at Neyveli Lignite Corparation are paid high wages. Similar is the case with workers who work underground in mines which is full of dangers and risks to life. They are, therefore, paid wages much higher than those paid to ordinary mill workers who work above the ground.

(b) Wages are likely to be higher in those occupations for which long and hard training is required. They may also call for a large initial expenditure for completing the training. Such is the nature of occupations like those of the physicians and surgeons, engineers and lawyers. Not many people would be willing to undertake such long and costly training required in these occupations. That is why the supply of people in these occupations is scarce or limited in relation to demand.

(c) The continuity or discontinuity of occupations and the security or insecurity of services would also influence the level of wages. The wages of workers engaged in the construction of buildings are generally higher than those of manual workers in other occupations because of the seasonal nature of the occupation. For example, masons will have no work during the rainy season and they will have employment only during good weather. Thus their employment is discontinuous and there is no security of service. Hence, unless the wages are made attractive enough the supply of masons will be insufficient to meet the demand for their services. To make people come forward to work as masons a high wage is paid to them.

(d) Wage levels also depend upon the prospects for success or failure in particular occupations. In certain occupations high incomes may be expected after some years of training

and hard work, as in the lawyer's profession. Hence, the law profession is rather crowded as large numbers are attracted by the high incomes of the successful. On the other hand, there are some occupations, like those of film artists and musicians, in which there are more failures than successes. Hence, the supply of labour in these occupations is quite limited and their wages are correspondingly higher.

(e) Certain occupations call for people who are trustworthy and can take responsibility. For example, goldsmiths are entrusted with valuables and they have to take the responsibility for the safe custody of gold articles. Hence, their wages are higher than those who work with baser metals. Further, to gain the confidence of their customers such people should also have long training and experience in the line. As such people are limited in number and their supply is ordinarily scarcer than demand their wages naturally go up. Similar is the case with bankers and cashiers engaged in monetary transactions.

**Legal Minimum Wages**

The wages paid in certain occuptions are insufficient even to have a subsitence living or minimum level of living for the the workers. Many years ago, such was the condition of wages in agriculture, plantations, beedi and cigar industries, and hotel industry. Workers in such establishments were finding it difficult even to manage two square meals a day. Even when the workers in these occupation worked for twelve hours a day and put in hard labour, their wages were so low that they could not satisfy even their minimum needs of life. In fact, the industries in which they were employed exploited their labour and came to be known as the 'sweated industries'. This could not be tolerated for long and society's conscience revolted against this injustice of exploitation of labour. The result was the passing of legislation by Governments in many countries, legally fixing minimum wages for workers in the sweated industries. This was first attempted in England and then it spread to other countries. You will be glad to know that such legal minimum wages have been fixed in our country for various sweated industries. Tamilnadu has taken a lead in this direction by

enacting legislation and expanding its scope from time to time to cover more and more industries. Governments in many underdeveloped and developing countries are taking similar steps.

**Trade Unions**

Individually labourers are incapable of facing their employers and bargaining with them for better wages or improvement in the working conditions. The employer is generally affluent, he is better educated and trained, with the result he is stronger and better placed than the worker who is generally poor, less educated and less trained. To remedy this imbalance, to strengthen the hands of labour, to protect him from exploitation and to put him on a footing of equality with the employer, labour leaders and social reformers in England organised trade unions and labour organizations. It is almost a blessing, a shield of protection to the helpless worker, and a shot in the arm restoring confidence to the individual worker. The fundamental advantage of the trade union organization is that it substitutes the more effective collective bargaining by the workers in the place of the weak bargaining on the part of the individual worker.

The industrial revolution in England caused a lot of misery to the industrial workers there due to low wages, long hours of work and other hardships. To resist this injustice and remove the exploitation of workers by the employers, the trade union movement was started in the 19th century and it steadily grew into a mighty organization. The webbs (Sydney Webb and Beatrice Webb) who have traced the history of the trade union movement in England have given a clear definition of the aims of trade unions as follows: Trade Union is a continuous organisation of wage labour which needs to protect its employment situation as well as to improve it.

**Trade Union and Wages**

The various activities and efforts of the trade union movement centre round the problem of wages. The efforts of this movement to protect the wages of labour as well as to

improve them sometimes in the following action: go-slow policy; opposition to the introduction of new machines and gadgets; and controlling the number of workers entering a particular industry.

It is obvious that trade unions are able to influence the wage rates. They could change as well as increase the wage rates directly through collective bargaining. In addition, certain indirect consequences of trade union action are capable of affecting the general productivity of industry. These indirect results could be classified as favourable and unfavourable. They are enumerated below:

**Favourable Consequences**

(a) Trade union raises the general productivity of the individual worker.

(b) By securing a satisfactory level of wages for the workers, the trade union protects the standard of living of the workers. Through this step, it converts the discontented working class into a contented community.

(c) When trade unions bring about increases in the wage rates, incompetent entrepreneurs and exploitative employers are eliminated from industry.

(d) As wage-rates go up, the employers are compelled to introduce labour-saving machines to manage the situation. Further, changes in the methods of production are also introduced to reduce the cost of production.

(e) Trade unions make it possible for the labour market to be regulated and to function smoothly. Also, it stabilises the conditions in industry through the fixation of a uniform basic wage for industry. Small disputes in industry are easily settled through the intervention of the trade union. At the same time, it enables collective bargaining to be conducted with the employers, utilising the services of experienced officials of the trade union. Through this means, problems are solved with the co-operation of the employers.

**Unfavourable Consequences**

(a) Trade unions may at times cause resistance to the introduction of changes and improvements in the methods of production. They fear that such changes will result in reduction of employment.

(b) It is said that through go-slow tactics workers who are employed and who are expected to turn out a certain quantity of work per day may try to do less work. This is intended to create work for their brethren who are unemployed. If trade unions resort to this step, it is likely that the long-run interests of workers themselves will be harmed. For example, when construction workers in England adopted this strategy, it resulted in less number of houses being built for the working class people themselves.

(c) There is also the policy of closed shop followed by some trade unions. This means that trade unions restrict the entry of fresh workers into particular industries so as to keep up the wages of those already working in these industries. Thus a situation of artificial scarcity of workers is created in particular industries. The result will be reduction in the output of the industries concerned, which, in turn, will reduce the incomes of worker and their purchasing power. Hence, the demand for goods produced by other industries will fall, throwing out of employment workers in other industries. In addition, consumers' interests will also suffer as they will be denied adequate supplies of goods. Under these conditions, the employers may introduce labour-saving machines with the result that workers will lose employment.

(d) Trade Unions usually fight for uniform wages for workers in a particular occupation. Therefore, even those with better skills and abilities than the rest have to be satisfied with this standard wage. It is true that determining different wages for different workers will become a complicated process. But what the trade unions do is to equate the better worker with the worse one.

(e) Sometimes trade unions in their over-enthusiasm to raise the wages of workers in an industry may actually cause harm to

the workers. For instance, if the wages are forced above the level of the marginal productivity of labour by trade union action there is every likelihood of the concerned industry closing down as the employer will be put to a loss. This will inevitably result in workers being thrown out of employment.

## RENT

**What is the meaning of rent?**

In economics, rent refers to the payment made for the use of land and other natural resources. It was the great economist David Ricardo who first gave an elaborate discussion of rent and formulated a clear-cut theory of rent. His theory of rent has come to be known as the 'Ricardian Theory of Rent' and it is one of the most famous theories in economics. He had explained the cause of rent or why rent should be paid. According to him rent is "that part of the produce of land which is paid to the land-lord for the original and indestructible powers of the soil."

Let us, before dealing with rent, get to know the characteristics of land for which rent is paid. Land as a factor of production has the following features:

**(1) Land is limited in quantity:** The difference between land and other factors of production is that it is permanently fixed in quantity and incapable of increase in amount. This is not so in the case of labour, capital and entrepreneurship the quantities of which could be increased at least in the long-run. In case of land we cannot bring about any change in the land area available in nature. We can neither add to the existing extent of land in the world nor destroy any part of it. Neither destruction of land by atom bombs nor the withdrawal of sea from land can bring about any noticeable change in the total area of land. We should note that land being a free gift of nature, it has no cost of production. Therefore, economists consider the rent of land as a surplus.

**(2) A second characteristic of land is that there are differences in the fertility of land:** Different areas of land have different fertility or quality. These differences are due to

differences in the composition of the soil and topographical and climatic conditions. Fertile areas of land will yield a high return while less fertile lands will yield a poor return which may not even compensate for the expenses of cultivation. For example, the lands on the plains of the Cauvery and Ganga are known to be very fertile. On the contrary; the marshy lands of the Sunderbans in West Bengal, the desert lands in Rajasthan, and the alkaline lands of Gujarat are not fit to grow either rice or wheat. The hill-slopes of Kashmir are ideally suited for growing fruit trees; but the barren lands of Telangana may be fit to grow only crops like maize and cumbu.

The value of land depends very much on its fertility or quality. Fertile land commands a higher value and less fertile land a lesser value. So also, the rent of land depends on the fertility of land.

**(3) The location of lands also influences its value:** Some lands are situated on the hillside and some on the plains. It would be easier to cultivate the plains and the cost of cultivation will also be less. On the contrary, it will be difficult to cultivate hillside lands; it will also take more labour and capital to do so. Similarly, it will be profitable to grow vegetables and fruits in the lands located near towns and cities and sell them in the town or city markets. But lands situated at great distances from towns and cities will not enjoy these advantages. Products grown on such lands will have to incur high transport costs to reach the markets in distant towns and cities.

Besides, the value of land depends also upon the nature and type of transport available to reach the markets from these lands. Even if some land is phsically located at a distance from the market/towns if it is served by fast and cheap transport like the electric trains or road transport vehicles, it is as good as the land being located near the towns. On the contrary, even if a piece of land is situated near the town, if it is not served by good transport facilities it suffers from a disadvantage. Therefore, the value of land also depends upon this factor of transport facilities.

We have therefore to clearly understand that the two factors which are important in determining the value of land are:

(1) the fertility of land and (2) the location of land. In countries like India, Canada, United States, U. S. S. R. and Australia which have vast areas lying at great distances from each other, the locational factor is very important. Large areas in these countries lie at great distances from the metropolis and other cities. Further all such areas may not be served by adequate transport facilities. On the other hand, in small countries in which lands are compactly situated like in England, Belgium, Denmark, Thailand and Sri Lanka, the question of fertility or the quality of land is more important than its location. In such small countries the value of land is mostly determined by this factor.

**The Level of Rent**

It is clear from the above that the value of land and, therefore, also the rent of land is governed by the fertility or location of land. In the case of some lands the high level of rent they command will be due more to their fertility than to their location; in the case of others, the high level of rent will be due more to their location than to their fertility.

**Ricardo's Rent Theory**

We have already referred to Ricardo's Theory of Rent. Ricardo, one of the most celebrated English economists, put forward a famous and interesting explanation as to how rent arises. We shall now try to understand his theory which has come to be known as the Ricardian Theory of Rent.

Let us imagine an island without any population. Suppose a batch of settlers arrive on the island with the intention of occupying some of the lands in the island and raising crops. They are likely to occupy, first, the best lands available in the island and cultivate them. They will enjoy the high yields of these most fertile lands. After some time, let us suppose, another batch of settlers arrive on the island. As the best lands have already been occupied by the first batch of settlers, the new batch of settlers would get only the second best lands. They will be somewhat inferior to those lands occupied by the first batch. By cultivating these inferior lands they will get yields

which are less than those obtained from the best lands in the lands of the first batch. But, the yields obtained from even these second grade lands will be more than or equal to the cost of cultivation on these lands. Otherwise these lands would not be cultivated. Suppose a third batch of settlers also arrived. These settlers would occupy only the third grade lands.

At any time, the price of food grains in the market will be such as to compensate the cost of cultivation of food grains on that land which was brought into cultivation last, i.e., the cost of cultivation on the marginal land. The cost of cultivation will include the labour cost and capital cost. When the demand for food rises, new lands or hitherto uncultivated lands will have to be brought under cultivation to increase the food supply and meet the additional demand. But the cost of raising crops in these less fertile lands is likely to be more per unit of food raised. Unless this higher cost of cultivating the marginal or poorer land is met by an increase in the price of food in the market, this marginal land will not be brought under the plough. In other words, the market price of the yield obtained from the marginal land should at least equal the cost of raising the yield from that land.

From all this flows an important conclusion: When less and less fertile lands are brought under cultivation, the yield per dose of capital and labour applied to land goes on decreasing. We have noted above that for these lands to be cultivated the price of food in the market will have to be at least equal to the cost of cultivation on these marginal lands. If this is so, then it will be true that the yields on the superior lands cultivated earlier would be higher than the cost of cultivating those lands. We have to note here that, for the same amount of labour and Capital applied, the yield on the superior land is more than the cost of cultivation, whereas, the yield on the inferior land is less than the cost of cultivation. This circumstance gives rise to a surplus of yield on the superior lands over and above the cost of cultivation.

One question which arises here is: To whom does this surplus belong? Does this surplus belong to the tenant who

actually cultivates the land on lease, or does it belong to the landlord who is the owner of land. According to Ricardo, the surplus belongs to the landlord and not to the tenant. This is because the surplus arises on the superior lands only. There is no surplus on the inferior land or the marginal land whose yield is just equal to the cost of cultivation. Therefore, the surplus is solely due to the superior fertility of land and is not due to the tenant's efforts. That is why this surplus has to be paid to the land-lord who owns the land.

The tenant cannot claim it because both the tenant cultivating the superior land and the tenant cultivating the inferior land incur the same cost of cultivation per acre of land. If, therefore, this surplus were to be enjoyed by the tenants cultivating the superior land, the tenants cultivating the inferior lands, where there is no surplus, would also compete for the hire of the superior lands. This competition for superior lands will automatically raise the rent to be paid on the superior lands. This will result in all the surplus being paid to the landlord as rent. There will be no surplus on the marginal land and, therefore, no rent will be paid for the marginal land. In other words, the incomes of all the tenants will be equalised through competition among them. Therefore, the surplus, if any, will go to the landlord.

Ricardo derived this principle governing rent from an analysis of the above imaginary situation. He thus established his theory that rent is a surplus and this surplus differs from land to land according to differences in their fertility or location. As the fertility is higher and higher, the surplus becomes larger and larger. As more and more inferior lands are brought under cultivation, the yield on the marginal land decreases. Hence, the surplus on the superior lands goes on increasing correspondingly. There is no surplus on the marginal land and the cost of cultivation is just repaid by its yield. Thus the marginal land is a no rent land. The following diagram shows how rent arises on the superior lands and increases with the cultivation of more and more inferior lands:

In Fig. 9-1, you will see the horizontal axis is divided into equal parts representing plots of land, namely, A—B, B—C, C—D, D—E etc. These plots are of equal area though they

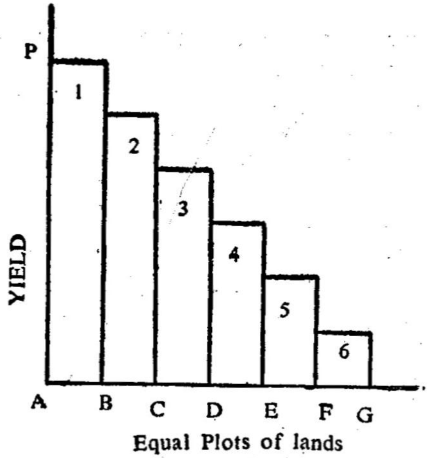



Fig. 9-1
Extensive Cultivation of Land

differ in their fertility or location. The rectangles which stand on these plot divisions represent the respective yields of these plots of land. The amount of capital and labour applied on each of these plots is the same and the method of cultivation is also the same. The most fertile land among these plots is A—B (numbered 1) and the surplus on this land over and above the cost of production is to be taken as rent. If we suppose that there is no cost of production (as cost of production is equal on all plots), for the sake of simplicity, then the whole of the yield on A—B, which is shown by the rectangle on A—B, becomes a surplus. Hence the whole of this rectangle represents rent. Similarily, on the second grade land, namely B—C (numbered as 2), its yield is less than the yield on the first grade land as the rectangle raised on B—C looks shorter than the rectangle on A—B. The surplus and, therefore, the rent on this plot of land is the whole of the rectangle on B—C. In the case of the rest of the plots also, the respective rectangles indicate the surplus.

on these plots as well as the rents on these plots. You may see how the surpluses and hence the rents go on diminishing as less and less fertile plots are cultivated (plots numbered from 1 to 6 in the diagram).

Let us be clear about the emergence of rent: As the population of a country increases, the demand for food also increases correspondingly. Therefore, we cannot stop with cultivating the most fertile lands only. We will have to take up for cultivation less and less fertile lands. The least fertile land taken up for cultivation last is known as the marginal land. The yield on this marginal land is just equal to the cost of cultivation and there is, therefore, no surplus on the marginal land. But all the intra-marginal plots of land give higher yields and, therefore, there is a surplus on each one of these, numbered from 1 to 5. The surpluses are larger and larger as the plots of land are more and more fertile. When the second plot of land is cultivated, a surplus arises on the first plot of land; when the third plot of land is cultivated, a surplus arises on the second plot of land; and so on. As this surplus is due to the superior fertility or location of land, the tenant has no claim to it. It is not due to the labour and capital spent on land by the tenant. Hence, the surplus has to be paid to the landlord as rent. In our diagram, the plots of land 1 to 5 have such surplus. Only the marginal land, namely, the 6th plot in our diagram, has no surplus; its yield is just equal to the expenses of cultivation.

**Quasi-rent**

Quasi-rent is a term applied to incomes derived from man-made instruments which are temporarily limited in supply. As these incomes are similar to rent or like rent, they are called Quasi-rent. For example, the quantity of machines and tools and similar capital goods in existence in a country cannot be altered in the short-run. It may take a year or a few years to increase this supply even if their demand goes up. Suppose the demand for them suddenly increases, their prices are likely to go up in the short-run until their supply could be increased. As their increased earnings are solely due to their scarcity in the short run, they are almost like the rent of land (which is the

result of scarcity of fertile land). Hence, Marshall called these abnormal earnings Quasi-rent.

Let us give a few illustrations to make the concept clear. During the first World War (1914—18), the demand for shipping space suddenly went up for transporting war materials. But as enemy submarines were hunting and destroying ships, the number of ships available for hire, was very much reduced. This created a situation in which the demand for ships went up many-fold but its supply could not be increased. This caused a sudden and steep rise in the hire charges for ships. The owners of ships reaped huge profits due to the abnormally high earnings of ships during that period. You would realise how it will not be possible to build new ships in the short period. To build a ship, it normally takes a few years (the blue-print of the ship has first to be prepared, then the steel and wooden framework have to be laid, the engine has to be installed and finally the external fitments and facilities have to be added, all these taking a number of years). But after the war new ships were built and the supply of ships was increased within a few years ; as a result their earnings once again came down to the normal level. Therefore, the whole of the short-run abnormal earnings of ships are in the nature of rent and are to be considered as Quasi-rent.

Similarly, large and complex machines which take many years to build will enjoy surplus earning during short periods of temporary increase in demand. For example, huge cranes for lifting very heavy weights, large drilling rigs used for sinking tube wells, heavy plant and equipment like huge boilers and electric generators could enjoy Quasi-rent during short periods of scarcity in supply or sudden increases in demand. The whole of their earnings during such periods will be in the nature of Quasi-rent (deducting only the expenses of maintenance and operation).

But in the long period, when the supplies of these machines have been considerably increased, their earnings will return to the normal level and Quasi-rent will disappear.

## Determination of Interest

### Rate of Interest

What is interest? Some of us may remember the film song which raises a question and answers it. It asks what is the most desired thing in the world which is being paid and received in every home and in every country? It answers the question by saying, it is interest! interest! and interest! This song only focusses on the wide prevalence and influence of interest in the material world in a humorous and paradoxical vein.

Interest is the payment made to the capitalist for loan of capital. It is paid by the borrower as a price for loan capital which he obtains and uses in his business or productive activity. It can also be said that interest is a reward paid out of increased production to the capitalist who has saved his income and lent it to the borrower. This interest paid is normally expressed as a percentage rate, i. e., so many rupees per hundred rupees per annum.

This interest rate charged for loans by the lender is not the same or uniform rate throughout the country. It differs from sector to sector of the economy even within the same country. For example, banks in our country charge different rates of interest for different categories of borrowers. Ordinarily, banks charge a lower rate of interest for the borrowers who are trust-worthy or credit-worthy and who can offer property and other property and other security for the loans advanced to them. On the other hand, they charge a higher rate of interest for those who are either not very credit-worthy or who are unable to offer property or other security for the loan. The banks normally charge high rates of interest for business man, traders, money-lenders and pawn-brokers depending on their securities. We may ask why rates of interest differ widely (sometimes from 10 per cent for bank loans to 50 per cent for loans by money-lenders).

We have to understand that the gross interest paid by different borrowers in the world does not consist of pure interest only. It consists of many elements like pure interest, an insu-

rance fee against risk of loss of capital and a fee for the services of keeping accounts, etc. rendered by the creditor. These elements can be separated and gross interest shown to be made up of the following:

(1) **Pure or Net Interest:** This is the payment made as pure reward for the service of the capitalist in lending capital.

(2) **Insurance Fee:** The person who gives the loan is not absolutely sure of the due and prompt return of the loan. There is a risk of default by the borrower and the money may be lost. To protect himself against this risk of loss, the lender charges, in addition to pure interest, a fee to cover this risk, i.e., insurance fee.

(3) **Payment for the Irksomeness:** When a creditor wishes to invest his money in loans, he will wish to grant loans in the amounts desired by him and for the periods chosen by him. But in the real world he will not be able to get these wishes satisfied as much depends on the needs of the borrowers. Sometimes, the creditor may not be able to get back the loan when he wants. The amount of loan and the period of the loan are very often determined by the borrower to suit his requirements. Thus the creditor has to undergo much inconvenience and irksomeness on account of this. It is to induce the creditor to bear this and still grant loans that an additional payment has to be made to him. This is included in the gross interest charged by the creditor.

(4) **Fee for services:** The creditor has to keep an account of the transactions with the borrower. He has also to keep watch of the repayment and issue notices to the borrowers. All this involves additional work for the creditor and he requires a payment for these services rendered by him. These services involve much inconvenience and work especially in the case of small loans.

**Paradoxes Concerning Interest**

Economists have during the past few centuries raised and debated many controversial questions concerning interest payment for capital. These questions are:

1. **Should interest be paid for loans ?**
2. Why is interest paid for loans ?
3. How is the rate of interest determined ?

Let us examine these questions and the answers to them which have been offered by economists.

(1) The question, **should interest be paid?** implies indirectly that demanding interest payment for loans is unethical or immoral, is unjustified and amounts to exploiting the borrower. A great many centuries ago Aristotle, the great Greek Philosopher and thinker, expressed himself against interest collection, especially, usurious interest. The great Christian scholar and thinker St. Thomas Aquinas, who followed many centuries later, had also condemned the charging of interest on loans. He said that lending money to the needy borrower is part of our duty to our brethren. He further added that demanding the payment of an additional sum over and above the return of the principal lent to one in financial difficulties, is nothing short of sin and injustice.

These views were born out of the then prevailing conditions during the early times when these great thinkers lived. In those days only the poor people borrowed loans mostly to provide themselves with food and clothing and other necessaries of life. Thus borrowing was a means of tiding over poverty. Hence it was considered immoral to exploit poor people in misery. It was then rather rare to borrow money for use as capital in one's trade or business.

Another reason for considering interest as a symbol of immorality during early times was that most creditors who lent money to others mostly belonged to the arrogant wealthy classes or they were the usurious money lenders; they were indeed, people who were out to exploit poor people.

Though the condemnation of interest could have been justified under the conditions prevailing in early times, under the modern conditions, payment of interest has become an economic necessity. Today, industrial production and extensive

trade and commerce have become the pillars of economic progress and welfare. Therefore, borrowing capital for investment in production or trade is almost a necessity. Businessmen need more and more capital for expansion of their businesses. This has brought about a big change in social and economic attitudes towards borrowing and paying interest. Saving one's income, lending one's savings to others, investing borrowed capital in business and producing goods for sale, earning profits through such activities have become economic imperatives. These constitute the only way to achieve economic growth and progress in the country. When the lender knows that the capital he lent is helping a businessman to increase production and earn more profits, it is but natural for him to expect that he should be paid a share of the increased profits. As our economy today is mainly based on industry and trade, the businessmen, producers and traders engaged in these activities require loan capital in large amounts to finance them. But they themselves will not be able to save from their incomes the capital they would require. Hence they have to borrow from others who have savings to lend. Those who lend their savings expect to be rewarded; otherwise they will have no incentive to save and lend. Therefore, borrowing loan capital and paying interest for the same are necessary and even unavoidable in the present day economy (they may be necessary evils!). In view of this, the preachings of philosophers and religious leaders against payment of interest cannot be sustained today. Interest has become a legitimate reward now for the service of the capitalist.

(2) **Why is interest paid for loans**, can be answered on the following lines: Today, interest is considered a legitimate reward for the services of the capitalist who has undergone irksome inconveniences in saving the capital he lends to others. The four basic factors of production which have a claim to a share in the national income have been identified as land, labour, capital, and organisation. The share of land is rent, that of labour is wage, that of capital is interest, and that of enterprise is profit. Hence interest has to be paid as a due reward whoever be the lender. Irrespective of whether the lender is an individual, private institution or even a Government

organisation, interest should be paid by the borrowers as it is a just reward for a necessary service rendered by the one who possesses capital. It is no more an act of exploitation or injustice committed by the lender on the borrower. Economists, no doubt, condemn usury but approve of reasonably determined levels of interest.

What is borrowed is money capital and we say interest is the payment for obtaining money capital. But, in reality, the borrower is indeed obtaining a command over the purchase of raw-materials and capital equipment which he requires for production purposes. In other words, he obtains free purchasing power through the loan which he can use as he wishes for purposes of production. In early times, most loans were intended for consumption purposes, but in the present times most loans are for investment in production. The borrower invests the loan in his business and increases his profits. Therefore, he would be willing to give a share in this increased profit to the lender of the loan. The borrower expects that the increased production due to the investment of the loan would bring him increased profit which will be more than the interest to be paid for the loan. Therefore, he is willing to pay the interest for the loan.

Another reason which justifies the payment of interest is the sacrifice which the lender undergoes by lending his savings to others. One who comes forward to lend his savings should be prepared to give up the use of his savings for the period of the loan. It is, therefore, but right that this sacrifice should be rewarded by payment of interest to the lender. Otherwise, people will not come forward to save and lend their savings. If people don't save, borrowers will not be able to borrow. There will be no source for loan-capital then. Thus interest serves as a necessary incentive and provides a motivation to the savers to save and lend.

(3) **How is the rate of interest determined?** This is the most important question concerning interest.

Economists have pointed out the forces which play an important part in determining the rate of interest or the level of

the interest rate. In general, it is the demand and supply forces which make the interest rate what it is at any time. We shall examine these forces a little closely now.

The person who borrows capital normally invests it in his business; as a result, he is likely to enjoy increased profits. The lender who has saved this amount and made it available for use in production has, indeed, performed a productive service. We have already understood that interest is the remuneration or reward paid for this productive service of the saver. The rate of interest is really the price of loan and therefore it is determined just the same way as the prices of all other goods and services are determined. In other words, the demand and supply forces which determine all other prices are also responsible for the determination of the price of loan, or the rate of interest, in the money market.

**Demand for Capital**

The demand for capital arises from the need to produce more and more consumer goods. As people want larger quantities of these goods, producers of these goods have to buy and install more machines and equipment to produce these goods. To buy these machines and expand production, more and more capital will be needed. If in the money market the supply of loan capital is limited and does not expand to meet this increased demand, then the price of loan capital will go up. In other words, the rate of interest will rise rather steeply.

**Supply of Capital**

The supply of capital refers mostly to the supply of savings. The savings in a country depends on how much individuals and institutions consume and how much they save out of their incomes. It also depends partly on how much credit (loans and advances) the banks in the country are prepared to raise. The supply of capital will, therefore, be more or less according to the amounts of savings and credit available in the country.

The surplus of savings in a country is governed by the amount of production of wealth in the past periods in that country, and the amount of its consumption in the past periods.

If the amount of past production has been rather small and the whole of it has been consumed by the people during the past period, there is likely to be available no savings in that country. In such a situation that country has to borrow almost the whole of the capital it needs from foreign countries or the world bank (as India has done in the early years of its economic development). In developed countries of the world like the United States, Germany, Japan and Russia and Arabian countries (which have large surpluses over consumption due to huge oil revenues), there is a surplus of production over what is consumed during the year. That is how these countries accumulate savings and lend them to other countries which have no savings of their own. This results in the countries of the world falling into two categories, namely, the creditor countries and the debtor countries.

Next, we shall get to know more about savings and the factors which influence the savings of the people in a country. To put it briefly, the following are the two important factors determining the volume of savings in a country:

(1) the ability to save, and (2) the will to save on the part of the people.

Some people are by nature inclined to save and they develop the saving habit. Such people will mostly be those who are concerned with the future needs of their families, or those who wish to achieve some objectives in the future (like the construction of a house, the education of their children, investments which will yield incomes in the future). Some will be anxious to provide for their retired life and others to make sure of security in old age. But most people may not save as they have neither the inclination nor the habit of saving. They have no serious concern for their future. To make these people also save, we have to offer an incentive. In other words, they should be induced to save through the offer of an attractive rate of interest. If the interest rate goes up, it is likely to make them save more due to profit motive. If, on the other hand, the interest rate falls it is likely to make them save less as it will be less profitable now to save.

Therefore, whenever the demand for capital increases, and we have to increase the supply of capital, this can be achieved by raising the interest rate. Such a rise in the rate of interest will induce a larger supply of capital.

The ability to save on the part of the people depends on the incomes of the people or the level of the national income of the country. This is because if the income is higher the ability to save will be higher. If, therefore, we could make the national income of the country, that is, the national output of the country increase year after year, the savings in the country, i.e., the national savings will automatically increase. In other words, the supply of capital will increase. On the contrary, if we allow the population to increase excessively then the per capita income in the country will fall, and the ability of individuals to save will also fall correspondingly. Besides, even if the annual output (GNP) of the country increases year after year, if the growth rate of the population is high most of the increase in income is likely to be swallowed by the increasing population. This is the condition prevailing in India today. As the surplus of production over increasing consumption is small, the volume of savings in our country is also small.

The case of developed countries like the United States, Germany, and Japan is quite different from that of countries like India. In the developed countries, the output of goods and services or the national income is steadily increasing while the rate of growth of their populations is quite low, if not stagnant. Therefore, in these countries the surplus of production over consumption is quite large enabling them to generate more savings. In fact, in these countries, the rate of saving per annum is said to be more than 25 per cent of their national income (or a quarter of their national income). In India in recent years, the saving rate has been around 20 per cent. If we could step up this saving rate to above 25 per cent, we will be able to increase the domestic supply of capital in our country to the required extent. Such increase in the supply of capital will provide us with more and more funds for investment in economic development projects of our country. The implemen-

tation of such economic development projects will offer more and more employment opportunities for the unemployed people in our country. This will also enable us to reduce the level of poverty in our country.

We have understood how demand and supply forces of capital determine the general rate of interest in the country. The rate of interest will, therefore, change from time to time in accordance with changes in either demand or supply or both. However, for a particular type of loan, for a particular period, in a particular money market there will prevail only one rate of interest. Of course, this particular market rate of interest will differ according to the length of time for which the loan is sought. It also depends on the use to which the loan is to be put by the borrower. Banks, in general, charge a lower rate of interest for a short period loan and a higher rate of interest for a long period loan.

## PROFIT

So far we have examined the income shares going to three out of the four basic factors of production, namely, the rent of land, the wages of labour and the interest for capital. We have understood the nature of the shares in the national income which are enjoyed by these factors and the forces determining their shares. It remains for us now to examine, last, the nature of the income share going to the fourth factor of production, namely, entrepreneurship.

Profit is the reward paid to the factor called entrepreneurship or enterprise in return for its essential service of organising and directing the business or enterprise. It is important for us to note that profit as a reward is in many respects different from the rewards of other factors, namely, rent, wages and interest. Let us first examine this difference.

Profit is an uncertain income. But rent, wages and interest are all certain incomes. The latter incomes are all contractual incomes while the former income is a non-contractual income. The landlord, the worker, and the capitalist enter into a contract with the entrepreneur or the organiser of the business

as to the remuneration to be paid to them, respectively. Once their services have been supplied, they demand from the entrepreneur their rewards as per the contract. The entrepreneur pays them their rewards when they are due, as agreed to earlier. Otherwise, the entrepreneur will not be able to obtain their services any further. He will, in addition, be liable for legal action for failure to fulfil the contract. But, in the case of the entrepreneur, he himself is the employer and master and he cannot enter into a contract with himself for any payment. It is he who started the business and employed all other factors of production to produce the commodity. He is like the gods Siva, Vishnu and Brahma for the enterprise and so he organises, directs and takes responsibility for the business. He pays the other factors of production their remuneration as agreed to from the revenues of his business. Whatever remains, after this payment to the other factors has been made, belongs to him. As he has to take the ultimate responsibility for the business, as we have understood in the previous Chapter, he is the person to enjoy the profits, if any. If there are no profits, he cannot complain to anybody but has to be content with that. Even if there is only loss to be borne, he is the person to suffer the loss. That is why, economists say that profit is an uncertain income whereas other rewards are all certain incomes.

# PART IV—INCOME AND EMPLOYMENT

## 10. THE NATIONAL INCOME

The total of the goods and services annually produced by the land, labour, capital and organisation in a country, which constitutes the year's national wealth, really belongs to all those who have contributed to its production. Therefore, it is but fair that each of these factors should enjoy its respective due share in this national income in accordance with its services. Suppose the share of each one of the factors of production is syphoned off from the reservoir. The incomes thus received by the factors of production constitute the national dividend or social income. The share of each of the factors of production in the national income indeed goes to the individuals who are the owners of the factors of production, namely, owners of land, owners of labour, owners of capital and owners of the entrepreneurial services. Thus the landholders, the labourers, the capitalists and the entrepreneurs have the right and opportunity of enjoying their share of the national income. The income share which goes to the landowner is called rent; that which goes to the labourer is called wage; what is received by the capitalist is known as interest; that which goes to the entrepreneur is known as profit.

The income that is distributed among the various factors may be rightly considered to consist of goods and services, in other words, the real income of the community. But, if we are to make an estimate of the aggregate income of the community for the year, viz., its national income, it will not be possible to arrive at any single figure so long as we consider the actual quantities of the diverse goods and services produced. We may have to reduce all these quantities of many different goods and services to a single denomination. This is possible only if we convert them into their money value at the ruling market prices and add these money values into an aggregate figure. This aggregate money value serves as a measure of the national product of the country. It can be expressed as so many crores (or millions) of rupees. For instance, the national income of India

for the year 1979-80 has been computed as around 80,000 crores of rupees at current prices.

The celebrated economist Marshall has lucidly explained the real national product of a country in the following terms:

'The labour and capital of the country, acting on its natural resources, produce annually a certain net aggregate of commodities, material and immaterial, including services of all kinds. This is the true net annual income or revenue, of the country'.

To arrive at the aggregate value of all goods produced and of all services rendered by the factors of production during the year, we have first to enumerate all the different goods and services produced in the country during the period. From foodgrains to vegetables, fruits to milk and butter, from dresses to jewellery, from pins to planes, from trains to tram cars, from machines and equipment to multistoried buildings, from saws to ships, from bombers to nuclear armaments the money value of all items of output should be computed. As for the value of the services produced, we have to estimate the money value of all the services from those of the doctors to lawyers and judges; from the services of teachers to artists, musicians and dancers; from the services of servant-maids (except those of mothers and housewives who render services out of love and not out of any economic motive) to those of gardeners; the services of banks, beauty parlours and laundries; the services of dentists, engineers and employees of all kinds. These services are rendered in return for monetary, i.e., they are sold for a price and hence command market value. The prices for the services are a measure of their monetary value. If we add the amounts of money paid for these services, i.e., their market value, the aggregate money value of these services forms an important part of the national income. The money value of these services produced and sold added to the money value of the goods produced and sold in the market together constitute the national income of the country concerned.

The national income of a country is a measure of the economic power of the country, i.e., the productive power of

the economy. Different countries of the world have different productive powers which are reflected in their national incomes. For example, the United States of America produces the highest Gross National Product (G.N.P.) in the world. Next comes Soviet Russia with probably the second highest G.N.P., followed by Canada, Germany, Japan, France and Australia.

It may be natural to assume that only those countries will have high national incomes which have large land areas, great natural resources and large populations. On the otherhand, countries which command only small land areas, small natural resources and small populations are assumed to have only small national incomes. But this is not true in the real world. For instance, though India, China and some African countries have large areas, and India and China have the largest populations in the world, their national incomes are certainly smaller than those of smaller countries with smaller populations like Germany, Japan and France. We may ask why these imbalances occur and what accounts for these amazing differences in national incomes? We have already observed that the national income of a country is determined by the amount of goods and services produced in that country during the year. Hence, it is easy to understand how the country's national income will depend on the following factors: The productive skill of the people; the education and other technical skills possessed by the people; the amount of capital goods like plant and machinery, factories and equipment and inventories of raw materials; the means of transport and their volume and efficiency; the production methods and technologies followed by producers; the amounts of raw materials and other productive inputs available in the country. All these together determine the national product or national income that a country is capable of producing.

We have to bear in mind also that there are certain factors and circumstances which operate to lower the national income of a country. These factors are: low productive capacity or productivity of the people; lack of education and lack of technical skills; absence of hard work and perseverence; indifference and lack of patriotism; inadequacy or scarcity of tools, equipments, machines, factories and other instruments of production;

inadequacy of transport equipment and facilities; inefficient methods of production and outmoded technologies; scarcity of inputs and required raw-materials; the closures and lock-outs of factories declared by management, and strikes by workers; lack of peace and the frequent occurrence of disruptions and disturbances in society; absence of discipline and devotion to ideals; lack of good industrial relations and co-operation between the employers and employees; non-observance of the rules and procedures for conciliation and collective bargaining to settle industrial disputes. One or more of these causes may interrupt production in the economy and thereby reduce the output of goods and services. This will result in a fall in the national product and national income.

In most of the advanced countries of the West, the national income generally increases by about 2 to 5 per cent per annum due to favourable factors like the following: disciplined population; joint efforts by employers and employees to step up production and productivity; large quantity of capital available per worker; new and advanced technologies. You may no doubt feel eager to know the position in India in this respect. We in India are fortunate to have certain advantages which are favourable for increasing our national income. Among the favourable factors are our large man-power; our large pool of scientists; the very large number of educational institutions and technical training institutes; our large natural resources including iron-ore deposits, coal-deposits, land and water resources, forest and fisheries; our highly developed art and handicrafts; our cultural attainments and intellectual vigour; these could contribute to a progressive increase in our national income if they are put to work and utilised properly.

All the same, we should be amazed at the fact that countries which have much smaller land areas and populations than India could boast of much greater national products or national incomes than ours. For example, Germany, France, Japan and even Italy occupy higher positions than India in this respect. What are the reasons for our national income being lower? We have already discussed the causes which account for the low level of the national income of a country. All these causes

apply to India also. Unless we attempt to remove these causes it will not be easy for us to raise the level of our national income.

Let us look into those causes which are responsible for our low national income. Though our population is about 68 crores, the working force or labour force is only about half of this population (or even less). The proportion of children is very high in our population compared with that in advanced countries of the West. Also the proportion of the aged, the sick, the disabled and those who depend on others for their livelihood is quite large in our population. This is one reason why our national product is not proportionate to our population.

In addition, the productivity of our labour is also not so high as in the western countries. This is mainly due to lack of education and technical training which are not wide spread in our country.

Besides these, the lack of adequate capital equipment is a major cause of the low level of output in our country. In the economically developed countries, especially in the West, each worker, on the average, has about Rs. 50,000 to Rs. 100,000 worth of capital equipment or machinery per head. But in our country, the amount of capital equipment available per head for workers is only around a few hundred rupees or a few thousand rupees worth. We have already understood in the earlier Chapters that the per capita production or per capita output of a country is very much dependent upon the amount of machinery and tools available per capita in that country. The greater the amount of such capital equipment in the country, the greater will be the national product or output (G. N. P.), the smaller the amount of such capital in the country, the smaller will be the national product. For example, in countries like the U. S. A. and Canada almost every farmer has one or two tractors to help him in the agricultural operations; but in India only one tractor per one thousand farmers is available. This explains the great difference in output per acre in India and the advanced countries. The output per acre in the advanced countries is many times more than that in India due to this factor.

Another reason for the low output per head in India is the lack of modern technologies and know-how in production. The

ones that we use are not the most modern or latest but rather old and less efficient. Further, in the advanced countries research and development for discovering new methods and techniques is a continuous process. Most factories have their own R and D groups engaged in continuous research to produce newer and newer products or to lessen the cost of production of the existing products. In each of these countries many thousands of crores of rupees are set apart for such R and D by companies and business houses. But the case is different in India. We lag behind very much in such R and D and our companies and business houses consider such expenditure on R and D as unnecessary if not almost a waste of money. Hence, our methods and techniques are outdated and the productivity in our country does not increase steadily as it happens in the advanced countries. What we see in our country is the spectacle of bullock-carts and wooden ploughs; methods and techniques of production which are based more on manual labour and less on machinery and machines which run at low speeds and whose productivity is less.

An important reason for our low national product is the absence of Co-operation and close Co-ordination between the two important partners in production, namely, labour and management in increasing production and productivity. Generally, in our country there is a lack of strong motivation in the people who are engaged in production to produce more and increase productivity. In contrast, in the advanced countries of the West, the motivation among people engaged in production is quite high. There, the management and lobour exhibit great devotion, a sense of duty and pride in their achievement. In our country we witness the influence of factors like superstitious beliefs, conservative attitudes and habits, lack of personal confidence in oneself, lack of touch with material realities, indifference and indolence and waste of time in empty talk. Many foreign visitors and analysts have particularly noticed these unproductive and inefficient attitudes among our people.[1] All these factors are responsible for the low production and productivity levels in India.

[1] See Gunnar Myrdal's 'Asian Drama' for many such comments on the Indian people.

Besides, the man-days lost in our country due to the strikes by workers and lock-outs by employers run into lakhs and lakhs per year. Unless we find ways and means of reducing this huge loss of man-days, we will not be able to raise our production level to any appreciable extent; also we will be neither able to eliminate the shortages in the supplies of essential goods in our country, nor to reduce the poverty of our people in general. It is interesting to know how workers in Japan show their protest against the policies of their employers; there the workers do not generally strike work as they very well realise the loss to the nation resulting from stoppage of production. Instead, they go to work wearing badges showing their protest. In other words, the problems between the workers and employers in Japan are mostly resolved in ways that do not affect production. That is why, the production level in Japan is quite high and its national product is much higher than that of even very large countries like India. You may be tempted to ask when are we going to follow Japan in this respect and raise our production manyfold!

Let us now get to know how large changes in the level of national product could lead to large changes in employment level, income level and expenditure level thereby affecting the economy seriously. We may note here the interesting fact that national income has two facets. They are like the two sides of a coin; on one side, national income represents the income streams which reach the hands of the land-owners, capitalists, labourers and entrepreneurs as rewards for the services rendered by them in producing the national product. In other words, national income consists of the sum of the rent, interest, wages and profits received by the four factors of production in return for their services in producing the national income of the country. On the other side, the national income represents and is equal to the national expenditure. This is because the total of expenditures by people in the country on the purchase of various goods and services during the year is what constitutes the total of incomes of those who produced and sold them. Thus national income cannot but equal national expenditure. They are, to repeat, the two sides of the same coin.

All those who receive their incomes do spend their incomes on the purchase of goods and services which they wish to enjoy. This gives rise to the demand for goods and services in the country ; it is this demand which leads the producers to produce the goods demanded and sell them. Therefore, it is easy to understand that if the national income rises expenditure is also likely to rise as people's demand for goods and services is likely to go up with the rise in incomes. As the level of production goes up to meet the increased demand, the demand for the factors of production, especially labour, is likely to go up. This means increase in employment of labour and consequently increase in the incomes of those newly employed.

On the other hand, if national income goes down or is reduced, the incomes of individuals go down and their purchasing power is reduced. This will cause a reduction in demand and sales will go down. Producers will produce less and, therefore, will employ less number of people as otherwise they will be put to loss. Hence to protect their capital as well as reasonable profits, employers will offer less employment. When the level of employment falls, the economy will suffer from depression. Depression affects the economy adversely as all economic activities are pushed down to a lower level.

This is why governments throghout the world try their best to prevent a fall in their national income by all means. In fact, they try to make their national income go up steadily so that employment level can be kept up and unemployment reduced to the minium. They, therefore, direct their attention to strategies like planned development so as to enable such a steady increase in national income, which is otherwise known as economic growth.

You may be surprised to know that during the 1930's, between the years 1928 to 1931, the world was rudely shaken by the 'great depression', the like of which it had not experienced before. This depression which started in the United States gradually spread to other countries of the world and finally engulfed almost the whole world. It brought misery all round. The money markets crashed; businesses became bankrupt; production came down rapidly due to the sudden fall in

incomes and demand; people lost their jobs in thousands and incomes were wiped out; demand for goods disappeared; the economy of the world was paralysed; there was gloom and despair everywhere. This is not a fable but fact.

You would have realised by now that income, demand, production, and employment are all closely inter-connected with each other and the state of the economy of the country. We have so far examined the general concepts about national income and the interesting as well as unpleasant facts about changes in national income, etc. We have to examine next, the income per head of the population in the country.

**Per-capita Income**

If we divide the national income of the country by the total population of country concerned, the figure we get is the per head income or per capita income of the people in the country. For example, let us say for simplicity that the national income of the country is Rs. 10,000. Suppose the population of the country is only one hundred. If we, therefore, divide Rs. 10,000 by 100, we will get the figure Rs. 100 as shown below:

$$\frac{\text{Rs. } 10{,}000}{100} = \text{Rs. } 100.$$

We have to point out here that the aggregate figure of the national income, however large it may be, does not by itself give us a correct picture of the level of welfare or the standard of living enjoyed by the individuals in society. We have to take into account the number of population among whom the national income is distributed and by whom it is enjoyed. In other words, it is the per capita income which serves as the real measure of the standard of living of the people in general. If the population increases, the national income remaining the same, then the per capita income will fall. If, on the other hand, the population declines, the national income remaining the same, then the per capita income will go up. You will, therefore, realise why the number of the population in the country matters very much and plays a crucial role in determining the level of the per capita income in the country. That is, changes in population can bring about a fall or rise in the

per capita income of the country. It is precisely because the population of India is already very large and it also grows at a rate of about 2 per cent per annum, which is considered excessive, that our per capita income is one of the lowest in the world. We are not able to bring about a steady annual increase in our per capita income, as advanced countries are able to do, because of this population trend in our country. In fact, whatever increase takes place in our production does not bring about the same increase in our per capita income because of our rapidly growing population. In other words, population growth swallows a good part of the increase in our production or our national product. This is why the increase in production achieved through the Five-year plans in our country is not adequately reflected in our per capita income.

**Standard of Living**

The standard of living of a person is determined, by the amount of goods and services he is able to enjoy, by spending his income on them. Therefore, it is the per capita income or the average income per head that helps us to measure the standard of living of the people in a country. The economic welfare enjoyed by the people of a country is normally measured by economists by its per capita income. If per capita income rises, the economic welfare of the people rises; if it falls, the economic welfare also falls. This has been internationally accepted and even the world bank applies this yard-stick of per capita income to classify countries as poor and rich countries. The world bank extends development aid to poor countries to help them achieve economic development only on the basis of their per capita incomes.

The per capita income of our motherland is very low when compared with other countries of the world, especially the developed countries, Therefore, India's place in the order of the world countries ranked according to per capita income is almost at the bottom. About half of India's population is said to be below the poverty line.[1] The per capita income of an Indian

[1] Poverty line refers to the minimum income required to supply to the individual, in terms of food, about 2000 calories of energy per day. Such income, at current prices, is about Rs. 60/- per month.

is only about one-twentieth of that of people in the developed and rich countries. The Table below gives us an idea of this continuing poverty in India. If we take it as one-twentieth, then it may be said that the per capita income of an Indian and his standard of living is only about one-twentieth of that of an American, German or Japanese. Put differently, the standard of living of an American, German or the Japanese is almost twenty times higher than that of an Indian. When will we be able to catch up with these countries in the matter of our standard of living? We can only make a guess!

TABLE 10-1

| | Income per capita (in US $) | | |
|---|---|---|---|
| United States of America | 4,900 | Japan | 1,500 |
| Canada | 3,500 | Italy | 1,490 |
| Sweden | 3,300 | Soviet Russia | 1,100 |
| Denmark | 3,000 | Poland | 1,100 |
| West Germany | 2,800 | Portugul | 600 |
| Norway | 2,800 | Turkey | 320 |
| France | 2,750 | China (Taiwan) | 300 |
| England | 2,400 | Egypt | 190 |
| Israel | 1,900 | Korea | 115 |
| Czechoslovakia | 1,600 | India | 90 |

### The Problem of Distribution of Income

We have been concerned so far with the analysis of national income and per capita income. Let us now proceed to examine how the shares of the national income going to the various factors of production like land, labour, capital and organisation are determined. In other words, how much of income goes to land as rent, to labour as wages, to capital as interest and to entrepreneurship as profit. Simply put, we have to examine how the remuneration or rewards of the various factors, in return for their services, are determined—what determines the rewards of factors?

We are not, however, concerned with examining the incomes of individuals or personal distribution of income, but

only with the incomes of the factors, that is, functional distribution of income. The income of an individual may depend upon his personal characteristics, his individual abilities, his education, his productive efficiency, his social connections and even unexpected events in his life. Therefore, it will be almost inpossible to undertake the task of examining the income of each and every individual in society. As all individuals will, in one way or other, find their places among the four factors of production, the determination of their incomes for performing their function as factors of production will alone be examined here.

From the beginning, economists have been seriously concerned with the discovery of the principle which governs the distribution of income among the factors of production. They have explained the problem of distribution and suggested possible approaches to the understanding of its solution. They were also aware of the fact that the principle which ultimately determines the rewards of the factors is going to affect the economic welfare of different sections of society, the standard of living of the various classes of people, and the economic equality of the people. That is why economists have, as well-meaning social scientists and economic philosophers, made the problems of distribution the centre of their enquiry. It has been considered the most important problem or the central problem in economics to be solved by economists as pointed out by Ricardo in his 'Principles of Economics'.

**Marginal Productivity Theory of Distribution**

Economists have tried to find out the basic principle which governs the distribution of income and they have arrived at the following conclusion: The reward that each factor of production gets, depends on the addition to production made by the last unit of that factor employed in production. It is said that if we find out by how much output has increased due to the employment of the last or marginal unit of the factor, then the reward paid to that factor cannot be almost more than the additional output obtained. In simple terms, the reward will be equal to the marginal output or product of the factor concerned. This is known as the Marginal Productivity **Principle or Theory of Distribution in Economics.**

# 11. SAVING AND INVESTMENT

The national income of any country does not remain steady and stable. Sometimes it rises sometimes it falls. What makes the national income of a country rise or fall ? Alternatively, what makes the national expenditure of a country increase or decrease? You will like to ask such questions. You will, of course, be eager to know the answers to these questions. The science of economics will be able to provide the answers to these questions.

When the national income goes up and down cyclically, economists say that it is the occurrence of booms and depressions. Such booms and depressions occur once in a few years and they bring prosperity or poverty to the people. It is, therefore, the foremost duty of the Government to see that these changes in national income or not excessive and they are as far as possible moderated. This is important because, otherwise people would be put to a lot of suffering. The Government will have to frame a suitable policy to ensure that the welfare of the citizens is not adversely affected by the rise and fall of the country's national income. The citizens too have a part to play in ensuring the national income rises steadily over time. A steady rise in national income helps to increase the welfare of the people while a fall in the national income reduces income and employment in the country.

Let us now see what factors determine the level of the national income or national expenditure. These are indeed the two factors known as saving and investment. We have already known the concepts of saving and investment in an earlier Chapter. It is the great economist, John Maynard Keynes who brought out the power and influence of these two forces in causing changes in the level of the national income. It is he who established that booms and depressions are caused by changes in the level of saving and investment.

The world witnessed the 'great economic depression' in the 1930's and it brought down the level of economic activity so

much that millions of people were thrown out of employment. As the national income was depressed to a low level, incomes of many people came down or even disappeared. People were caught-up in the coils of unemployment and misery. The cause of this sudden depression was not clear to anyone and there were wild guesses about the reason behind this extraordinary phenomenon. The credit really goes to Keynes for having found the real cause of this economic depression. He established the fact that it was the lack of expenditure by the people which pushed down the level of economic activity. He diagnosed the economic depression as the result of absence of adequate consumption and investment expenditure. He made it clear that if sufficient expenditure is undertaken by both the people and the Government, depression could be prevented from occurring in the future. He pointed out that faulty economic policies of the Government could lead to depression and cause misery and unemployment. In fact, he singled out saving and investment as the villain of the piece. He proved that changes in saving and investment in the economy of a country brings about fluctuations in national income and national expenditure.

We shall now go a little deeper into the implications of changes in saving and investment in an economy. Saving is what remains of one's income after consumption. In other words, saving is income less consumption expenditure. For instance, no one normally likes to spend his entire income on consumption, A portion of his income is likely to be set apart for future needs and requirements; it is this part of the income which is set apart for the future that is called saving. In the case of an individual this is called his personal saving. Likewise, a business unit may set aside a part of its profits earned during the year so that it can invest this amount for its expansion in future. This saving by business units is called corporate saving. It is the total of the savings by individuals and businesses which is called the savings of the country.

Savings of the country can be explained by the following simple equation :

If National Income = Y
Consumption = C
Saving = S
Then, S = Y — C.

Let us now examine the term investment. It is explained by economists that expenditure incurred on current consumption of goods and services cannot be considered as investment expenditure while the expenditure incurred on the production of goods for future consumption or capital goods is to be considered as investment expenditure. Let us illustrate this by an example. If a farmer spends his income over purchases of dress, sweets or jewels, it is consumption expenditure; similarly, if he spends his income in celebration of his daughter's wedding and in throwing a feast, it is again consumption expenditure. On the other hand, if he spends his income over levelling his land or the improvement of his paddy field or to carry out innovative techniques of production, it is investment expenditure. It is therefore evident that any expenditure undertaken by an entrepreneur for improving his business or expanding it or even to start a new enterprise is to be classified as investment expenditure.

An imaginary illustration will help to make the concept clear and clarify the difference between consumption goods and capital goods. Suppose a beautiful princess is seated at the dining table in the palace and she is tasting her food. Suppose an angel enters the place and seeing the princess, curses her out of envy. Suppose further, that the princess and everything else in the palace are made to stay still as they were at the moment of the curse. Let us go round the palace now and try to classify the goods we see there into consumption goods and capital goods. We see on the dining table cakes and sweets, fruits and salads and many other dishes of choice food. What are these? They are all consumption goods. The princess has on her person gold-embroidered silks and satins, gold and diamond jewels. These too are consumption goods. We also find well furnished halls in the palace containing offices and the king's court, the king's throne and other equipment used for adminis-

tration. These goods are to be classified as capital goods as they are not intended for current consumption but for yielding future services.

It should be clear by now that capital goods or investment goods are those which help in the future production of goods or services in the future. For example, all factories, machinery equipment and instruments of all kinds which help in the future production of goods are to be classified as investment goods. Expenditure incurred to build them, to buy raw materials and to employ labour in production falls under investment.

It is now necessary to understand the consequences of saving and investment on the economy of the country, more specifically on the level of the national income and employment. Ordinarily, people who save do not themselves invest their saving. Sometimes an entrepreneur may save and invest his saving in his own business. But, in the modern world people who save are different from those who invest. Often, savers lend their savings to others who are willing to borrow the savings and invest them in their businesses.

In any society, the savers are households, firms, businesses and the Government. Those who invest the savings available in the country are the producers and extrepreneurs like businesses and the Government. As savers may not find suitable borrowers to whom their savings could be lent without risk; most of them may prefer to lend their savings to the banks and other financial institutions. In fact, they deposit their savings with these institutions. The banks which receive these deposits lend them to their clients for interest, who borrow from the banks for investment purposes. Out of this interest earned by the banks, they pay a part of it to their depositors as a reward or price for their saving.

If the savers are themselves the investors, saving and investment will be equal to each other and no complication will arise in the economy. In fact there will be equilibrium between

saving and investment and the national income will maintain its level and be steady. But this is normally not so. The aims and intentions of savers are different from those of the investors. As the two do not coincide it is likely quite often for saving either to exceed the investment demand for saving or for it to fall short of investment. Savers plan their savings in relation to their future needs and objectives. Also, saving depends on the incomes of the savers. On the other hand, investors take into account the interest rate which they have to pay on their loans as well as the anticipated profits from their investment projects before they make their decisions as to how much they would invest. Therefore, it is important to note that the decisions on investment are influenced by factors which are quite different from the factors which influence the decisions on saving. It is clear then that it is this difference which causes the difference between the amount of saving and the amount of investment during any particular year in the economy. When there arises a difference between saving and investment in the economy it causes a fall or rise in spending in the economy. When what is saved is not invested the income withdrawn from the economy is more than the expenditure due to new investment. This inevitably causes fluctuations in the national income of the country.

Let us now see how these fluctuations in the national income are brought about. We all know very well that one man's expenditure is another man's income. It is, therefore, the total expenditure by the people which determines the total income of the people. In fact, income and expenditure are like the two sides of the same coin. Hence, if some people in society do not spend the whole of their incomes during the period but save a part of their incomes, the rest of the people in society would receive only less income than before. It may appear to be a puzzle to state that when citizens of a country increase their savings, investment remaining the same, their incomes are reduced. Unless investment also increases to the same extent to which saving has increased in the economy, the national income

will be reduced. We may ask a question here and answer it to clear the puzzle regarding saving and spending. Whose actions benefit society more? Is it those of a saver or those of a spend-thrift. A saver by reducing his spending in fact reduces the incomes of others. But a spend-thrift by spending more than his income in fact puts more incomes into the pockets of others.

It does not, therefore, mean that saving is not desirable. In fact, there can be no investments if funds are not available through savings. Without adequate investible funds, entrepreneurs and producers will not be able to undertake fresh investment in agriculture, industry, etc. If such investment is not undertaken, there can be no additional employment created in the economy. Hence, it is necessary to encourage saving by offering incentives like an attractive rate of interest. Then only the availability of capital for loans could be improved. With more loan capital, more investment could be undertaken. Hence, the welfare of the people in the country and their standard of living could be improved only through generating enough savings for investment. However, the gap in expenditure caused by saving will have to be covered through additional investment expenditure if the level of the national income is to be maintained.

Now, we should pass on to a consideration of investment. When investment is undertaken, additional expenditure takes place by way of purchase of raw materials, employment of additional men and purchase of new machines and equipment. The construction of factory buildings and creation of marketing organisations also involve additional investment expenditure. If the total of additional investment expenditure equals the total of saving in the economy during the period, there will be no gap between saving and investment. Hence, the national income will neither fall or rise. In other words, there will occur no fluctuations in national income.

If, on the other hand, saving exceeds investment, national income will fall. On the contrary, if investment exceeds saving,

national income will rise. In brief, saving amounts to a deduction from income whereas investment amounts to an addition to income. It is necessary, therefore, for Government to ensure that during any period there is an equality or equilibrium between saving and investment. Otherwise, the gap between the two will result in fluctuations in income. However, it is desirable to raise the level of investment above the level of saving so long as there is depression and unemployment in the economy. Such excess of investment will contribute to the growth in national income and promote the welfare of the people through a rise in incomes and employment. In other words, the per capita income of the people will go up with the rise in investment.

Lastly, we have to understand the problem with regard to saving and investment in a Capitalist economy. In such an economy, there is a private sector and a public sector. Very often, investment in the private sector falls short of the required investment for maintaining full employment and economic growth. In such a situation the Government will have to step in and itself undertake new investment to cover the

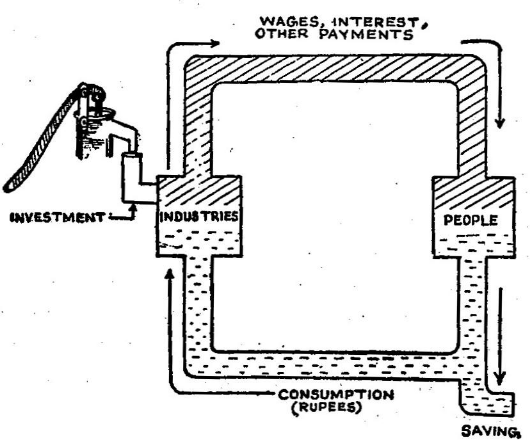



Fig. 11-1
Investment — Saving — Income

gap caused by shortage of investment. In other words, public sector investment will be required to compensate for the shortfall in investment in the private sector. The Government should also encourage investment in the private sector by offering incentives for the investors to come forward to invest. In other words, in capitalist economies, the Government will have to act as the guardian of investment to promote increase in national income and economic growth. This is the advice tendered by the great economist J. M. Keynes to the capitalist Governments all over the world. Many capitalist Governments today follow the wise suggestion of Keynes and have achieved success to a great extent in promoting the economic welfare of their peoples and prosperity for their economies.

**Fig. 11-1 illustrates how investment and saving affects or determines the limit of the national income.**

# 12. FULL EMPLOYMENT AND UNEMPLOYMENT

You may be interested to know more about employment and unemployment, as you have probably heard and witnessed, so much about unemployment in our country through the newspapers and personal observation. Let us first answer the question as to what is the meaning of full employment. Economists define full employment as a condition in which all those who are able to work and are willing to work for a wage are provided with wage-employment. If, on the contrary, a part of those able and willing to work are not provided with wage-employment (or could not be provided with wage-employment), then it is said that the condition of unemployment prevails in the country. If this unemployment is small, i.e. if the percentage of people unemployed in the country is small, it will affect the country's production (GNP) and economic growth only to a small extent. In other words, the loss of out put caused by labour being idle will be small; that is the reduction in the output of the country and its economic growth will be small. If, instead, the prevailing unemployment is large, i.e., if a considerable number in the population of the country are unemployed, then the production and economic growth of the country will be considerably reduced. When people are unemployed, they have no earnings; without income, they will have no purchasing power. Hence, the demand for those goods and services which these unemployed people were buying earlier will fall. The producers of these goods and services will automatically reduce their production as they will not be able to sell them to the unemployed. When production is thus curtailed, there will be less need for workers. The employers will not offer as much employment as before; the result will be more unemployment now. A large number of people will, therefore, suffer from unemployment, loss of income and misery. The first great economist who made this analysis of the economy under conditions of unemployment is J. M. Keynes. This kind

of analysis of the whole economy is called macroeconomic analysis.

Full employment obtains only in some countries of world which have small populations and large areas of cultivable land. In most of the countries of the world a certain amount of unemployment prevails from time to time. It is true that a certain amount of unemployment is caused in any country by certain factors and cannot be altogether avoided. But Governments in these countries try their best to reduce the degree of unemployment to the minimum. Generally, Governments do not worry much about this minimum degree of unemployment so long as it does not exceed about 5 per cent of the workforce. This minimum unavoidable extent of unemployment is caused by the following factors. The continuous fluctuations in incomes and production caused by trade cycles or business cycles; permanent changes in demand and supply conditions; the interval of unemployment between leaving old jobs and securing new jobs by those who want to change their jobs; changes in production due to changes in demand for seasonal products. If, however, the prevailing unemployment rate in a country exceeds this 5 per cent or so which is almost normal, such substantial unemployment is a symptom of the unsoundness or abnormality of the economy. As we have already pointed out in an earlier chapter, such a substantial degree of unemployment will be the result of imbalances in the economy due to changes in savings, investment and expenditure in the economy of the country. The remedy for such a situation lies in bringing about necessary contra-changes in the volume of these variables and restore balance in the economy. For example, we have already noted that if investment is increased employment opportunities will expand; similarly, if expenditure is decreased employment will contract.

We shall examine next, the nature and types of unemployment. Economists have categorised them as follows:

**(1) Unemployment Caused by Business Cycles:** Business cycles refer to the periodic and cyclical changes taking place in business conditions, trade, production, income, profits and

employment. The two extreme conditions caused by the movement of these variables are known as prosperity or boom at the top and depression or slump at the bottom. When depression sets in, producers cut back their outputs due to fall in sales and thus cause widespread unemployment of labour. Such a catastrophe struck many countries of the world in the 1930s as we have already mentioned. As, during this depression, millions of people lost their jobs and were thus steeped in misery, this depression has rightly come to be known as the 'great depression'.

**(2) Unemployment Caused by Structural Changes in the Economy:** In every country shifts are constantly taking place in the demand for goods and services as well as in their supplies. If these changes are small they will not affect people much. On the other hand, if changes are large and are of a permanent nature they are certain to affect the economy considerably by causing unemployment. For instance, the demand for the products of a particular industry may drop suddenly; if this fall in demand is permanent, that industry has to close down. Such a disappearance of demand may happen in the case of particular types of dress materials, as and when dress fashion undergoes sudden changes. The industry engaged in the manufacture of this line will have to close down if the change in fashion is permanent and a majority of the customers are lost. A good example of this is the loss of demand, almost permanently, for the radio manufacturers in the advanced western countries with the coming into fashion of television sets. Thus all those employed in the industries which are declining are likely to lose their jobs. Until alternative jobs are secured for them, they will swell the ranks of the unemployed.

A similar consequence may follow changes taking place on the supply side too. There may indeed be no change in demand still unemloyment may be caused due to difficulties on the supply side like the following: the exhaustion of a particular raw material or natural resource available in the country such as a mineral; water or forest resource. When the resource has been exhausted, the industry or industries which were based on this resource may have no other alternative except to close down. If the coal deposits or the iron ore deposits of a country get

exhausted, certain industries based on these deposits will close down, throwing out of employment all their workers. Another circumstance may also cause unemployment. If the wage-rate in a certain industry is pushed up beyond the capacity of the industry to pay, the employer may find it a losing business and decide to cease production. This will result in unemployment for the workers concerned. Sometimes, employers may introduce capital intensive methods of production and use more and more machines which will displace labour. This will inevitably cause unemployment of labour. This type of unemployment is known as technological unemployment caused by substitution of new technologies for the old. For example, if a business or industrial unit installs a computer to process its accounts, many accounts clerks in the unit may lose their jobs. Similar will be the consequence if automation is introduced in industries.

**(3) Frictional Unemployment:** In any country, at any particular time, a certain number of people will be leaving their present jobs and going in search of new jobs. It is likely that these people who are shifting from one industry to another may have to wait for sometime before they are absorbed in their new jobs. In some cases, they may be required to take re-training for the new jobs. Unemployment of such people till they are absorbed in their new jobs is known as frictional unemployment.

You may be aware of the fact that those who complete their school or college courses and go in search of jobs in our country have necessarily to wait for a few months or years before they secure their jobs. Such unemployment of these graduates is also frictional unemployment.

Suppose, unemployment is caused by strikes by workers or by lock-outs declared by the employers. This too, will fall under frictional unemployment.

**(4) Unemployment due to Scarcity of Capital:** This type of unemployment is witnessed mostly in underdeveloped or even developing countries. In these countries, the population is growing at a rapid rate. India is a case in point and it can very

well be an illustration. As population increases in these countries, the number of job seekers also increases correspondingly. These new job seekers cannot be absorbed unless additional employment opportunities are created in the economy. As we have already learnt in an earlier chapter, an important means of creating additional employment is to increase fresh investment in the economy. Additional investment on a continuing basis will help to expand employment through building new industries and expanding the existing industries. But in underdeveloped countries, there is not enough capital available within the country for additional and growing investment. This is due to lack of savings, i.e. consumption expenditure swallowing almost the whole of the national income. Therefore, there is a continuing scarcity of capital in these countries standing in the way of additional or new investment.

Besides the above, there is another factor too which is an impediment to the growth of investment in industry. To start new industries and run them efficiently and profitably, the following human capital resources will be required in adequate quantities; trained and skilled workers for the production jobs; trained and highly specialised managers and executives to supervise and direct production on the right lines; able entrepreneurs to promote and organise new enterprises and make innovations. Such personnel are scarce in underdeveloped countries and unless their supply is increased adequately new investment on a large scale will be impossible. Though there may be a large unsatisfied demand for goods and services in these countries and a need for larger production to meet this demand, the absence of trained man-power in sufficient quantities will hamper additional investments. Hence, it will not be possible to provide enough employment to the vast number of unemployed in these countries. As a result, it is found that there are too many men and too few jobs. In other words, what one man could do is being done by more than one; jobs are crowded by men. Those without employment are engaged in doing something or other of rather unproductive work just to eke out their livelihood. Such a situation is also known as disguised unemployment. A good example of this is the overcrowding in agriculture in our country. Even if some of the present number of workers

on an agricultural farm are withdrawn, production will not be affected.

(5) **Seasonal Unemployment:** In some industries production does not take place at the same level throughout the year. Production may also be discontinuous as the demand for the products of these industries is seasonal. For example, brick-making will take place only during the summer months and will be discontinued during the rainy season. Preparation of fruit juices from natural fruits is done only during the harvesting season for fruits. Even in the case of agricultural activities, raising certain crops is restricted to particular seasons. Therefore workers engaged in such seasonal industries or occupations will have employment only during the production seasons. During the rest of the year they will have to remain unemployed. Hence, this type of unemployment is known as seasonal unemployment.

**Methods of Reducing Unemployment**

The problem of unemployment faces every country of the world at some time or other. Among the ills of capitalism which periodically afflict the peoples living in capitalist countries, unemployment is a very serious one. The reason why unemployment stares the capitalist countries in the face is that they do not wish to regulate and control the entire economic activities in the country according to any centralised plan or design to ensure full employment. On the other hand, in the socialist countries, the entire economic activities and the economic behaviour of the people within the country are strictly regulated and controlled in accordance with a central plan. The centralised planning in these countries is aimed at ensuring employment to all. Hence, there is no unemployment problem in these countries. In other words there is always full employment in the socialist countries.

As unemployment to a greater or lesser degree is a continuing problem in capitalist countries, the Governments in capitalist countries try their best to keep unemployment down to the minimum of one to two per cent of the workforce. If these efforts to reduce unemployment to the minimum is to succeed, then steps will have to be taken both on the demand

side and supply side of labour. On the demand side, suitable measures to increase the demand for unemployed labour will be called for. On the supply side, such measures will have to be taken which will regulate and redistribute the supply of labour from time to time according to demand conditions.

Let us first examine the measures which will help to increase the demand for labour and thus increase the employment opportunities to the unemployed. These measures are as follows:

(1) In general, steps should be taken to continually increase investment in the economy. This will encourage new industries to develop and new lands to be brought under cultivation. Also, building activities should be encouraged and stepped up. All this will attract new investment; the level of investment will go up and expand production in all spheres. The result will be expansion of employment opportunities.

(2) By taking steps to increase the exports of the country, additional employment could be created in the export industries sector. Though production of goods is important, as important if not more important is the marketing or sale of goods. Therefore, if sales of goods could be expanded production could be expanded and employment too will expand. Even when sales of goods inside the country could not be expanded, their sales in foreign countries and international markets could be boosted up.

(3) People should be induced to buy and consume more of goods manufactured within the country to provide more employment to workers within the country. If, on the contrary, people buy more of goods manufactured in foreign countries or imported goods, to that extent, they will be providing more employment to workers in foreign countries only.

(4) One other step which will help create more employment within the country is the appropriate increase in Government expenditure. Very often private investment in the country is not sufficient to expand employment to the required extent. In such a situation, it may be necessary for Government to intervene and undertake many new investment projects and step up

investments to fill the gap. This will create additional demand for goods and services and give rise to demand for labour. Thus increased production and increased employment will march together. For example, Government can undertake the construction of new roads, new buildings, creation of new public assets and facilities. Such construction activity will directly create more demand for labour and hence more employment. But there is need for caution too in expanding Government expenditure beyond certain limits. Excessive expenditure may give rise to inflationary conditions in the economy with upward pressure on prices. Therefore, it will be necessary to watch the monetary pressures in the economy and avoid possible inflationary consequences while increasing Government outlay.

We can take up now the measures called for on the supply side of labour so as to adapt labour and redistribute it according to changes in the demand for labour from time to time. They can be listed as below:

(1) An employment information bureau should be established. Workers who are unemployed or want to have change of jobs should be asked to register their requirements with this bureau. Similarly, employers requiring workers should also be asked to register their demand with this bureau. When the demand and supply information for labour becomes thus available in the same bureau, the employers and workers would be able to contact each other and get their needs fulfilled. This will result in increased employment through mutual efforts and contacts between the employers and workers. In addition, this employment bureau could continuously provide plenty of information on employment opportunities to the workers. For example, it could supply relevant information to the workers on the demand changes for workers, i.e. the demand for what type of workers has increased or decreased and the like. Also it can make forecasts of probable future changes in the demand for workers of different categories. All this will be of great assistance to the unemployed workers to get to know the opportunities, now and in the future, available to them and get into jobs quickly.

(2) **Education:** Among the resources required for the country's economic progress and development human capital is almost the most basic. To increase production the following human resources will be essential: trained workers, educated employees, professionally trained managers, technically trained artisans, specially trained engineers, and scientific men and technologists who innovate new methods of production which are capable of increasing productivity. The backbone of economic development is increased production and higher productivity. If these aims are to be fulfilled and if employment is to be provided to all the workers who are in need of it the following measure is absolutely necessary: All the workers especially, the people who seek employment should be got trained and educated in suitable ways as required by the different sectors of production. In other words, if all those who seek employment are to be provided with suitable jobs so as to maximise production in the country, then one thing should be done. They should all be provided with opportunities to obtain the right kind of training and education which will be required for their absorption in the various productive sectors. For example, in a certain country there may be widespread unemployment among the unskilled workers. At the same time, there may be a scarcity of skilled workers who are trained for doing particular types of jobs in industry with efficiency. To overcome this supply scarcity, the Government of the country, public institutions, and industries of all kinds will have to make joint efforts to train the unskilled workers and make them skilled hands. Only through this method the employment opportunities for the unskilled workers could be substantially expanded. To carry out this measure, no doubt, a large number of industrial training institutes and technological educational institutions will have to be established.

Also, government departments, industrial establishments and trade unions should collect and publish information among the unemployed labour relating to demand for labour or scarcity of labour in particular places and sectors of the economy. This will be of great assistance to those seeking jobs and will ease unemployment to some extent.

## PART V—MONEY, BANKING AND PUBLIC FINANCE

# 13. MONEY, BANKING

In early times, people exchanged commodities for commodities as there was no money to be used as a common medium of exchange. One who had a surplus of any commodity exchanged it for another commodity from one who had it in surplus. For example, the farmer and the shepherd, the hunter and fisherman exchanged between themselves whatever was surplus to their needs. The hunter offered the surplus of meat with him to the shephered in exchange for the goat's milk which the shepherd had in surplus. Similarly, the fisherman offered the surplus of fish with him to the farmer in exchange for the latter's offer of foodgrains. Such a system of exchange of commodities for commodities is called the 'barter system'.

As population increased, exchange transactions too increased. The amounts and varieties of goods which had to be exchanged also increased manyfold. This gave rise to difficulties and complications as it was becoming harder and harder to match the commodities to be exchanged. In fact, for an exchange of commodities to take place there had to be a double coincidence of wants. For example, the shephered may be in need of foodgrains; he may have a surplus of meat to the exchanged for grains from the farmer. But, the farmer who has a surplus of grains may not be in need of meat. The farmer may be instead in need of a ploughshare. In this case, the shephered cannot have the exchange he desired. The only means of the shephered obtaining grains from the farmer is for him first to find out the blacksmith who has a ploughshare and who wants meat in exchange for it; if he succeeds in getting a ploughshare, then the shephered could get it exchanged for foodgrains, which he ultimately is in need of, from the farmer. This process involves two rounds of exchange transactions. To have these completed, it takes a lot of time and effort. If, the transacions involve many such rounds of exchange, then we can easily

imagine the enormous amount of time and efforts to be spent in completing the transactions.

To remove these enormous difficulties experienced in barter in a fast progressing society of ever increasing exchange transactions, man had to desperately search for a means to overcome this huge waste of time and efforts. As a result was born, money which people found to be convenient to serve as a common medium of exchange to conduct all transactions without let or hindrance. Examples of commodities chosen by man to serve as money in the early times varied from country to country. In Greece, it was the bull, in the African coastal areas it was the cowrie shells, in Nepal it was tea leaves, and in Japan it was rice. This common medium of exchange was accepted by all people in the country in the settlement of transactions. By making use of this medium of money, any one could buy any commodity or sell any commodity for money. This removed the difficulty in finding a double coincidence of wants. Also, this commodity money helped in arriving at the value of other commodities in terms of it. All this helped in speeding up exchange transactions by removing the difficulties involved in barter.

We may have to understand, that even the use of commodity money did not solve fully the problems of exchange. For instance, certain of the commodities used as money were bulky and difficult to carry from place to place, as in the case of bulls and sheep. In addition there arose the difficulty of dividing the money commodity as and when necessary for exchange in small quantities. If, say, a bull was considered to be equal in value to four bags of rice, and if some one wanted to buy only one bag of rice, in that case he will have to pay one-quarter of a bull as the price for the bag of rice. How can we divide a bull into four quarters unless we kill the animal! This created problems which called for a suitable solution. In the case of tea leaves, rice and salt which were also used as money, there was the difficulty of storing them for long in good condition. They were affected by heat and rains when kept in store for long. Therefore, they deteriorated in quality when stored and could not serve satisfactorily as money. In the case of animals like

bulls and sheep used as commodity money another problem arose. With time, these animals became old and died and therefore lost their value. Hence, these too could not serve as satisfactory money. A tribal community in Africa made use of knives as money. Knives could be used to buy anything in that society including a wife. To buy a beautiful wife a large number of knives had to be given in exchange. But sure, knives cannot be conveniently carried about in large numbers.

Inspite of the advantages that the use of certain commodities as common medium of exchange conferred on society, the use of these commodities suffered from many handicaps. These could not accurately measure the relative values of commodities to be exchanged. There was a need for a commodity which, besides being a common medium, can be used to accurately measure the value of all other commodities. It should also be capable of serving as an unit of account and a standard for the settlement of all transactions. In other words, the commodity chosen as money should enable the determination of the rate of exchange between all things to be exchanged. But this was not possidle so long as perishable and bulky commodities were used which could not be subdivided and whieh could not serve as an accurate measure of value or a standard of payment. All the same we should admit that this system of a commodity money had considerably eased the difficulties involved in the system of direct barter. In fact the commodity money system substituted the indirect barter system for the direct barter system. The indirect barter system used a third commodity as a medium of exchange to help the exchange between any two commodities. This made the transactions rather easier and simpler when compared with direct barter. The discovery of this third commodity to serve as a common medium of exchange indeed marked the birth of money. The third commodity was truly money, though it was not yet a perfect form of money. The discovery of money is said to be one of the three fundamental discoveries made by man, the other two being the fire and the wheel. These have indeed revolutionised the life of man.

In view of the unsuitability of the above commodities which were used as medium of exchange to serve as money proper and

perform all the other functions such as a measure of value, a standard of deferred payments, and a store of value, man had to continually search for a more suitable material to serve as full-fledged money. The trouble with the commodities so far used was that they were liable to deterioration of quality and loss of their value over time; they could not also serve as a store of wealth as they deteriorated when stored. Therefore, the search was for a new substance which could be stored without deterioration in its quality; which will not lose its value over time and which will itself have stable value. Also it should be convenient to handle and to carry from place. Ultimately, man succeeded in finding such a substance which possessed the above qualities and satisfied all the requirements to serve as good money. This substance was none other than the precious metals. He began to make use of these metals as money substance. The natural beauty of these metals and their scarcity of supply gave them an attraction and added advantage. Man was happy to use them as money, store them as wealth, and also to wear them as jewellery. He was infinitely captivated by the yellow metal and has never since been able to free himself from his slavery to this metal.

**Definition of Money**

It may appear odd to ask for a definition of money as everyone seems to know what money is: It is there in everybody's hands, including the beggar's; it dangles in everyone's pocket; it does not stay put in any place but keeps rolling about; it makes even the dead man open his mouth; it can do anything and everything—all these descriptions of money seem to say enough about it. Still money has a precise definition in economics which is not the same as what the man in the street understands by money. Money has some special characteristics and they need to be defined.

In the beginning, the concept of money was that it was a means or medium of exchange accepted by all in the settlement of transactions and a measure of value to determine the values of all other things (of course, except the value of man!). But in course of time it was realised that the characteristics of

money do not stop with this. In fact, two more features of money were recognised. These are: Money serves as a standard of deferred payments in facilitating exchanges between present payments and future payments, i.e., the grant of loans now and their repayments in the future, and all other credit transactions. Secondly, money also serves as a store of value. It enables savers to keep their savings for as long as they wish without any fear of loss of value with time. Accumulation of savings and wealth is thus made easy.

We can, therefore, conclude that money is something which possesses the above four attributes or characteristics. Of course, it can be pithily said that money is what money does.

We have to emphasise again that anything that is to be used as money should be universally accepted within the community as a means of settlement for all kinds of transactions in goods and services. Further, it should be freely accepted in the settlement of all credit transactions including the discharge of debts. Money is a kind of claim on all others in the community as it represents generalised purchasing power. One can, therefore, use money to make claims on society at the time and in the form which suits its possesser best, i. e., he can use it to purchase other articles or services as and when he pleases. Further, money eliminates the waste of time and other inconveniences associated with barter. In a sense, money is a blessing to the consumer as he could satisfy his wants without much trouble and delay by making payments in money. Similarly for the producer too, money is a blessing as it enables production to be conducted on a large scale. In the barter system, the purchase of labour and capital by making payments in kind will be a time-consuming and wasteful process. Also, the goods produced in large quantities cannot be easily exchanged for the products of others. But, with the use of money such purchases of labour and capital even on a large scale become easily possible and the goods produced could be easily and quickly sold for money. In this respect the use of money helps division of labour to a very great extent. Through division of labour each worker is given a certain small task which he can do best and thus production increases

manyfold, as we have noted earlier. This process of large-scale production and sale would be considerably hampered if money were not there. Hence, money has rendered modern production on a large scale profitable to the producers and beneficial to the consumers. Thus money is a wonperful instrument in the service of both the producer and the consumer. In contrast, under the barter system of payments in kind the producers will not be able to obtain labour and capital in the required quantities and at the time and place required. Let us reflect on this progress : Look at the requirement of double coincidence of wants for any exchange to take place under barter. Observe the modern money economy which facilitates the producer to produce any goods he wants to produce by buying any amount of labour and capital he wants. How efficient and productive are the money-based transactions when compared with the inefficient and wasteful exchanges in barter?

We should not fail to point out the great blessing which money has brought to the lenders and borrowers or creditors and debtors. It should be realised that credit is the pivot of the modern economic system. Modern production and trade are mostly conducted on the basis of credit. It is credit which lubricates the wheels of the economy. Such credit is supplied by banks and other financial institutions to the producers, traders and consumers as and when they need it and in the quantities they need. If credit is removed from the modern economy, the economy will crumble like a pack of playing cards in a gust of wind. Credit is needed to finance the purchase of raw materials, to hold stocks of manufactured goods and to dispose of the goods to the whole-salers in the modern economic system. If there is no credit, consumption, production and trade will very much contract; the economy will decline and contract causing economic depression; also a large part of employment and income will disappear. Though credit may appear to be a deceptive and unreal thing it is really a powerful factor in helping the economy grow and assisting the progress of mankind. It is indeed a magical factor in the modern economy—almost a magic wand. If this magic wand of credit is waved, the pauper and the prince will both be benefited; con-

sumption and production will favourably respond. It can help to eliminate poverty and scarcity of goods and inject economic vigour for development and prosperity. We will see presently how the supply of credit, its creation, maintenance and destruction, its increase and decrease are all very much in the hands of the central bank of the country and the commercial banking system.

**Kinds of Money**

The money that is in use in a modern society is of various kinds. They can be classified under the following categories :

(1) **Currency :** Currency refers to money which is issued by or under the authority of the State. It is the current medium of exchange and is freely accepted in the settlement of all transactions. Currency may be either printed and issued by the State or it may be issued by an institution authorised by the State. In India, all the coins from paise coin to the rupee, and currency notes from one rupee note to the hundred rupee note together make up our currency.

(2) **Legal tender money :** In each community there exist many forms of money. Some of these need not necessarily be accepted by the creditors in full settlement of debts and obligations. For example, cheques, bills of exchange and promissory notes will not be accepted by people unless the drawees and the drawers of these credit instruments are known to be trustworthy. Therefore these can have only a limited circulation among people known to one another.

The State, therefore, declares one or more forms of money to be what is described as an unlimited legal tender. This declaration makes it obligatory to the creditor to aceept this legal tender money upto any amount when offered in final settlement of debts and other exchange transactions. Such a legal tender money facilitates the exchange of goods and services and the discharge of obligations and removes all difficulty in exchange transactions. Legal tender has to be accepted upto any amount by the creditor in the discharge of

debts. Such a privilege is enjoyed by legal tender money because of government's declaration authorising it as legal tender.

(3) **Representative money:** We have already referred to representative money in an indirect way while explaining the nature of cheques and bills for exchange. We know that money is that commodity which is accepted as a measure of value and a means of exchange between all other commodities. But there are certain money instruments like cheques, bills of exchange and promissory notes which are not freely accepted in exchange for goods and services. They circulate only among people who know one another and who have confidence in the worth of these instruments. Such money instruments are known as representative money. These are used as substitutes or representatives for standard money. There are, of course, certain advantages in using representative money and that is why the community prefers to make use of them. The co-operation of banks, the facility of arranging credit easily and quickly on the basis of mutual confidence, and the need for quick credit transactions for increasing production and trade have all made the use of representative money desirable and extremely useful.

(4) **Bank money:** The commercial banks lend money and advance credit to the producers, consumers and traders. The Central Bank of the country assists the commercial banks in extending such credit. Customers of banks obtain loan capital from banks in the form of either loans proper, or advances or overdrafts. Banks make these loans on the basis of the deposits which are kept with them by customers and those who save. Besides, the banks' own share capital too serves as the basis for the grant of these loans. Banks use the deposits with them as the basic cash reserve and create loan-credits which are many times the basic cash reserve. The credit money thus created and distributed to the borrowers gets into circulation and adds to the money supply. Such bank credit and the current deposits of people with the banks together form a large part of the supply of money in the country. That is, current deposits and credit deposits with the banks form a large proportion of the money supply in the country.

**Functions of Money**

So far, we have been concerned with the definition of money and its characteristics. Now we shall explain the specific functions which money performs in a modern community.

It is said in a lighter vein that money will do many things; money will lead to sin; money creates illusion; joys and miseries are caused by the presence or absence of money—these do not refer to the economic role of money. The economic role of money is really the functions of money which are discussed below :

Money is a matter of functions four; a medium, a measure, a standard, a store — this couplet has put them in a nutshell.

**(1) A medium of exchange :** Though money performs many functions, the most fundamental of them is its function as a medium of exchange. It acts as a means of exchange freely accepted in exchange for all other commodities or services. Money enables its owner to obtain satisfaction of his wants without let or hindrance. It is accepted by buyers and sellers in settlement of all transactions in goods and services. All the irksomeness, wastefulness and helplessness which are associated with barter have disappeared because of the intervention of money. Man's life has been rendered less burdensome, joyous and cheerful by this change.

**(2) A measure of value :** The second important function of money is its service as a measure of value. It can measure the value of the commodities exchanged by reference to standard money (the commodity which is used as a standard of value and unit of account). Under the barter system, the main difficulty was how to measure the value of the two commodities to be exchanged. For example, how many kilograms of rice should be given in exchange for a kid? how many pairs of sandals equal one dhoti? Such questions could not be solved under barter. It is only with the appearance of money that a yardstick became available to measure the respective values of the commodities to be exchanged. In other words, the price of each and every good and service could be determined in terms of money. Money could precisely estimate the price to be paid by the buyer or the

price to be received by the seller of a good or service. This is indeed its function as a measure of value.

(3) **A store of value:** Money enables man to keep a store of value as long as he wishes. Money, unlike perishable commodities, does not deteriorate with time. It can be stored as long as necessary and used in the future as desired by its owner. It can be retained on hand indefinitely without loss and used for the satisfaction of his wants in the future. No other commodity can so well serve as a convenient and enduring store of value as money. Other commodities will deteriorate or even perish with time and cause loss to their possessor. Hence they arenot fit to serve as a store of value. Money is eminently suited for this purpose.

(4) **A standard of deferred payments:** In any community there are people who wish to lend and those who wish to borrow. Such loan or credit transactions are a basic feature of the modern economy. Credit plays a very important role in the economic life of the community and helps in its economic development. Credit involves the exchange of a present sum of money in return for a sum of money to be received in the future. If this transaction is to take place, the lender must be assured that the value he will receive in the future will correspond to what he is parting with today. If not, the lender is likely to be put to a loss and he will be unwilling to undertake any transaction involving future receipts in return for present advances of money. If this future value is to be ensured, neither creditors nor debtors must gain at the expense of the other. Such an assurance of equal value in the future requires that the commodity chosen for credit transaction must be such that its value is reasonably steady over a period of many years. Such a reasonably stable purchasing power can be had only through money, as the supply of money can be regulated in relation to demand. In the case of other commodities, their supply cannot be easily regulated.

## COMMERCIAL BANKS AND CENTRAL BANKS

### Commercial Banks

You might have visited a commercial bank in your place and observed the type of transactions conducted in a bank.

We have a large number of banks spread all over the country which are engaged in monetary transactions. These banks have the capacity to create money and supply it, to those who are engaged in productive activities. They can increase the supply of money in the country or decrease it, according to the requirements of production of goods and services in the country. In a way, the commercial banks are financial institutions engaged in the business of money and they provide the lubricating oil of credit-money which makes the wheels of the economy function smoothly.

The story of how banking developed in England is a fascinating one. Many centuries ago, the rich merchants and wealthy people in England were harassed by their tyrranical monarchs. They were also subjected to great risk of loss by frequent changes of government and the incidents of robbery and plunder. In fact, they were anxious to havc their gold and valuables put into safe custody. The goldsmiths of London were the only persons who could be trusted with gold and they had iron safes to keep the valuable in safe custody. Hence the wealthy merchants and other rich people took their gold and other valuables to these influential goldsmiths and left them in their hands for safe custody. In acknowledgement of this, the goldsmiths gave the owners of these valuables some kind of receipts. The owners were content to possess these receipts as tokens and felt happy with the safe custody of their valuables in the hands of the goldsmiths.

In course of time the merchants who were in possession of the above receipts, representing valuables kept in the goldsmith's custody, used to exchange these receipts in settlemnt of debts and obligations. Thereafter these receipts came to be freely accepted within the circle of merchants known to one another. In fact, these receipts in course of time came to be freely circulated and gained currency among a wider circle of people. Possession of this receipt gave the individual, the right to obtain the amount of gold. mentioned in the receipt, from the goldmith concerned. Transfer of this receipt, therefore, meant transfer of the ownership of gold mentioned therein. But, when people

came to have confidence in the ability of the goldsmith to deliver gold against the surrender of the receipt, whenever demanded, most people were not interested in demanding the gold unless they wanted to actually use the gold.

These goldsmiths found from their experience that only a few among the many depositors of gold turned up periodically to demand gold. Most depositors had simply not bothered to get back their gold for months. Hence only a fraction of the total quantity of gold will be needed at any particular time to meet the current demand of the depositors. Therefore, the goldsmiths felt safe to issue gold receipts in excess of the actual quantity of gold deposits with them. They made a profit out of this transaction by charging an interest on the receipts issued to borrowers. These receipts enabled credit to be created without actual gold backing to the full extent of the receipts issued. These receipts were freely accepted and used for settlement of obligations among the merchants who had complete confidence in the ability of the goldsmiths to pay gold if and when demanded. It is in this practice of the goldsmiths of creating more credit than the gold that they actually had in their possession that the miracle of bank credit creation was born.

Just as the goldsmiths issued more receipts than their gold reserves and made profits, the modern commercial banks too, issue loans or credit very much in excess of their actual cash reserves or cash deposits and make profits. These banks make use of the cash deposits left with them as basic cash reserves and, on this base, raise a credit pyramid many times the cash reserve. This has given rise to the multiple credit expansion by banks on the basis of fractional reserves. For instance, only a small proportion of the depositors of cash come back to the bank within a short time and demand their cash. The majority of them leave their deposits with the bank for months or years and make only infrequent demands for cash, if at all. As the banks pay interest on deposits, the depositors who do not really need cash will prefer to leave them with the bank for long periods. The banks learnt by experience that it is sufficient if they keep a fraction of the total deposits as cash reserve to meet

the average daily demands for cash. Hence, they feel quite safe to lend the rest and make a profit out of it.

The borrowers of loans from the banks are normally issued with a cheque book and a pass-book and not cash. The borrower is credited with the amount of the loan in the bank's books. Whenever the borrower wishes to draw money to pay for his purchases or pay those to whom he owes money, he has simply to fill in a cheque from his cheque book and hand it over to his creditor. His creditor can present the cheque at his bank which will credit his account with the amount of the cheque. The borrower's bank will debit the amount of the cheque to his account in the bank. As the banks which issue loans are well known for their ability to honour the cheques drawn on them by the borrowers (when presented at the counter of anyone of the banks) cheques have come to be widely accepted by people. In other words, the cheques represent the I.O.U's of the banks which are as good as money due to the confidence of the public in the banks' ability to pay cash on demand by honouring the cheques. Thus bank cheques have become a widely accepted credit instrument.

Banks are not the only institutions who lend money to borrowers. There are other institutions and individuals like savings societies and money lenders who also grant loans to borrowers. But the banks can do something which the other lenders cannot do. The money-lenders and savings societies can lend only what amount of money they have by way of cash— personal savings and deposits made by other savers. But the commercial banks would be able to lend many times the amount of cash in their hands. In this way banks are capable of resorting to multiple credit creation. Banks are indeed manufacturers of money. You may wonder how this is possible! We shall explain this so-called miracle now.

In every country there is a statutory requirement that the commercial banks should keep a minimum cash reserve against loans and advances granted by them. This legal minimum reserve or the cash reserve ratio may vary from 5 to 10 per cent. For example, if the cash reserve ratio is 5 per cent, it means that

for every loan of Rs. 100 made to a borrower, the bank should keep Rs. 5 as cash reserve. This cash reserve is intended to help the bank to meet readily its immediate liabilities if an occasion arises. This ratio of reserve (one twentieth or so) has been found from experience to be sufficient to meet the normal average demands on the bank. This system of a fractional cash reserve against liabilities is called the fractional reserve system. It is this system that has made it possible for banks to create multiple credit on the basis of a certain amount of cash in their hands—to build a credit pyramid indeed on a narrow base of cash reserve.

We should, however, note here that an individual bank cannot create multiple credit without the co-operation of other banks in the banking system of the country. Suppose the customer of one bank pays the customer of another bank a certain amount by cheque, that amount when depositied in the second bank becomes an addition to the cash reserve of the second bank. This additional cash reserve enables the second bank also to create additional multiple credit. If this happens to all the banks in the system, the cash withdrawn from one bank automatically gets deposited into another bank. Every bank which gets new cash can create additional credit. Thus, the cash reserves of all the banks together will enable the creation of multiple credit. That is why, it is said that what a single bank by itself cannot do can be achieved by the entire banking system in the country.

**Functions of the Commercial Banks**

The following are the important functions of commercial banks:

(1) Commercial banks form the most important part of the money market in any country. The function of the money market is to supply the monetary needs of the economy. If so, commercial banks meet a major part of the monetary needs of the economy through the money market. In fact, banks create and provide a substantial part of the money supply in the country. We have mentioned earlier the different forms of money circulating in a modern economy. Excepting the currency notes and coins

issued by the central bank of the country or the Government of the country, the rest of the money supply consists mostly of credit money created by the commerical banks and the deposits of the commercial banks (bank deposits). Banks, when they lend, provide the borrowers with credit deposits instead of cash. As the borrowers and deposit-holders of these banks find it more convenient to settle their mutual obligations by issuing cheques on their banks instead of paying cash, the system of cheque payments has become almost universal in all developed countries. Thus a great economy in the use of cash has been achieved through the services of the commercial banks. For instance, the housewife in these countries who goes shopping does not now-a-days carry a heavy purse of cash. Instead, she only carries a cheque book with her as almost everyone now accepts a cheque in payment of debts and obligations. These cheques are convenient to carry and, even if lost, this does not end in loss of money. Banks have thus given us a very convenient and serviceable instrument of credit, namely, the cheque which we can freely use in the settlement of debts and obligations. We have to admire the bankers for this great feat.

(2) In any country, saving by people differs from place to place and region to region. In other words, savings may be higher in one region and lower in another region depending upon people's will to save and ability to save. Similar is the case with investment. The demand for investment funds also varies from region to region within the same country. It depends upon the entrepreneurs in the different regions and their needs for funds for investment in particular regions. In a certain region available savings may be small but the demand for investment funds may be more. In other region it may be just the opposite, namely, savings available may be large but the demand for investment funds may be small. Such imbalances between savings and investment in different regions of the country may give rise to problems in matching them as required for economic development. The commercial banks play the useful role of bringing together the savings of the different regions by mobilising them through their branches throughout the country.

They gather the savings from regions where they are available in plenty and lend them to those regions which need investment funds but do not have enough savings locally available. Thus banks help the savers, who have surplus savings, to have their funds lent to the investors; they help the investors to get the funds for investment from the savers spread all over the country. By bringing together the savers and investors, the banks help investment for economic development.

The banks collect the savings from even the small savers and help them to earn interest income on their savings. By mobilising the funds of even small savers, the banks are able to accumulate huge funds and lend them to those who need them like the entrepreneurs, producers, traders and consumers. This helps to increase production in industry, agriculture and other sectors of production. With more investment, more production, and more employment the demand for goods and services will go up and the economic development of the country will be stimulated. Of course, banks earn a profit on the performance of this service. They pay these who deposit their funds with them a lower rate of interest and they collect a higher rate of interest on the loans and advances to their borrowers. The difference between the two rates of interest is the banker's profits. Banks too need to earn profits as they are commercial organizations engaged in the business of money.

(3) A commercial banking system which is trustworthy, honest and efficient can do a lot of good to the people of the country. It can encourage savings and the habit of thrift among the people. It can induce investment and assist in increasing trade and production. As the volume of exchange transactions is greatly stimulated through the facilities offered by banks, people are enabled to enjoy a secure economic life and a great degree of economic progress. It is no exaggeration to say that the banks help in bringing about a steady growth in the national income of the country and thereby help in improving the welfare of the people.

(4) The commercial banks render another important service to their customers. People who have no facilities at

home for keeping in safe custody their valuables like cash, gold, jewellery, precious stones, bonds and other securities can deposit them with the banks for safe custody. These banks have safe deposit lockers which they rent out to their customers for a small fee for this purpose. The customers' valuables are thus protected against theft and destruction by fire or floods.

(5) People in any country need a certain amount of foreign exchange from time to time for meeting various personal and business requirements. Businessmen who wish to make business tours in foreign countries, those who go abroad for education or for pleasure or for health reasons, all of them need the currency of some foreign country or the other of their choice. For example, they may need the American Dollars or the British Sterling, the German Marks or the French Francs or the Japanese Yens. The commercial banks can help to procure such foreigh exchange for their customers through the central bank of the country.

In another important respect too, commercial banks help the importers and exporters of the country. These businessmen may require the opening of letters of credit either in their favour or in favour of their counterparts in foreign countries. The commercial banks offer their services to arrange for such letters of credit for a small fee. This is of very great advantage to those engaged in foreign trade.

**Central Banks and Their Functions**

In each and every country there is a central bank which is established by statute. This bank is quite different in its objectives and functions from the commercial banks. Whereas the commercial banks are engaged in the banking business to earn profits just like other business establishments, the central bank is set up to perform certain national duties without any profit motive. This bank does not accept deposits from the public. It is also not engaged in making loans and advances to members of the public, i.e., private individuals and institutions. Its objective is to maintain and protect the currency of the country, and control and regulate the money supply in the country.

It has to continuously review changes in the demand for and supply of money within the country and take suitable measures to stabilise the price level. Through such measures to stabilise the prices, the central bank has to protect and maintain the value of the currency of the country from time to time. This is the essential basic function to be discharged by the central bank. The central bank can be described as the centre (even as the cynosure of the money market!) or pivot of the money market in the country.

The central bank was first established in England in the year 1844 and the Bank of England is the mother of all central banks in the world. Central banks which were later established in the other countries faithfully followed the policies and practices of the Bank of England in the beginning. Even today, all other cental banks make their decisions on their policies and practices only in the light of the views and practices of the Bank of England. In India, the Reserve Bank of India was established as the central bank of our country in the year 1934. The Reserve Bank of India supervises the working of the money market in India, and controls and regulates the money supply in our country. It acts as the banker to the Central and State Governments in India and helps to evolve and lay down the monetary policy for the country.

**Functions of Central Banks**

The Central Banks perform a large number of functions. It is the leader of the country's money market as well as the banking system of the country. It is the champion of the monetary scene and the King among the monetary institutions in the country. It controls and supervises the entire banking system and other financial institutions in the country. All the banks are subject to the direction and control of the central bank and are bound to follow its instructions from time to time, as per the statutory provision. It has to safeguard the value of the country's currency both within and outside the country. Further, it should ensure that there are no undue fluctuations in the price level causing either inflation or deflation in the country. Besides, it has to see that production is kept at the

optimum level in industry, agriculture and all other sectors of production. In addition, the central bank has to assist in the steady economic growth of the country through implementing suitable monetary policies. In general, central banks have to perform their functions with a view to fulfil the above objectives in the larger interests of the country's economic welfare and progress. Let us now examine the important functions of central banks.

(1) **Bank of Issue :** The Central Bank is the only bank which is empowered to print and issue bank notes which are the currency of the country. No other bank in the country has this right of issue of notes. The central bank, therefore, supplies the currency notes to the public and the commercial banks in the country as and when they need them. Further, it regulates the supply of these notes according to the changes in demand from time to time. Its promise to pay is there behind the currency notes. In the currency notes of our country (except in one rupee note) you will see the signature of the Governor of the Reserve Bank of India with his promise to pay the amount on demand.

(2) **Banker to Government :** The Central bank has the privilege and right of being the banker to the Government. It is authorised to keep the cash balances of the Government, both Central and State, and their deposits. It accepts payments on behalf of the Government like taxes and dues which are paid by citizens and institutions. So also it makes payments on behalf of the Government. Besides, the central bank makes short-term ways and means advances to the government to meet its urgent needs as and when required. Whenever government raises market loans to meet its long-term financial needs or makes repayment of such loans, it is the central bank which manages these loans transactions on behalf of the Government. It is, in general, the duty of the central bank to act as banker, adviser and agent of the Government in all financial and monetary matters.

(3) **Bankers' Bank :** One of the important functions of the Central Bank is to act as the bankers' bank and the lender

of last resort to all the banks in the country. The central bank acts as the banker to all other banks in the country and keeps their deposits. But, the central bank does not depend upon the commercial banks in the country and functions quite independently. Also, it does not compete with the other banks for business on the other hand. It protects and safeguards the interests of the banking system of the country. It extends help and assistance to the commercial banks when they are in difficulties. At the same time, whenever the commercial banks deviate from the norms laid down for them or misbehave in any manner, the central bank cautions them and corrects them.

Besides, the central bank goes to the help of commercial banks which are in difficulties due to sudden demands on them. We have already seen how every commercial bank has to keep a certain percentage of its deposits as cash reserve (about 5 per cent) as per law. This is intended to meet the normal demands on the bank for cash by customers during ordinary times. The banks are required to keep a part of their cash reserve with the central bank. The cash reserve thus kept with the central bank by all the commercial banks constitute the bankers' deposits and acts like a central reserve. The central bank makes use of this common fund to help out the needy banks when they are in difficulties unable to meet the sudden demands for funds by customers. In fact, when no one else can help the commercial bank concerned it can take refuge in the central bank. And the central bank is always ready to act as the lender of last resort to those banks which seek its help as a last resort.

(4) **Controller of Credit:** As already pointed out, when commercial banks grant loans to their borrowers they are given in the form of credit deposits with them. Banks, therefore, are able to indulge in multiple credit creation and enjoy large profits by lending such credit. If, out of greed for more profits, the commercial banks resort to such credit creation beyond reasonable limits, it will result in excessive money supply in the country. Such abnormal increase in money supply will lead to inflation and cause distortions in the economy. The central bank has the responsibility to restrict and regulate credit creation by banks and keep it within reasonable limits. By way of

punishing the erring banks the central bank can levy a high rate of interest on these banks whenever they come to the central bank for help; or the central bank can even refuse help to such banks which fail to observe the norms of good banking as laid down by it. On the other hand, the central bank can encourage such of those banks which observe the norms faithfully; the central bank can offer to help such good banks by rediscounting their bills and giving them ready assistance as and when needed. Further, the central bank takes steps to see that the commercial banks expand their credit during the peak productioh periods (like the harvest season and full production season for industry; Similarly, it takes steps to make the banks contract their credit during the lean production season for industries and off-season for agriculture.

Besides, the central bank also keeps track of the use of commercial bank funds by customers for unproductive purposes like hoarding, black-marketing and speculative dealings in goods. People who indulge in these malpractices for earning abnormal profits with the help of bank funds are denied credit at the instance of the central bank. Merchants, stockists and middlemen dealing in certain specified goods are discouraged from hoarding such goods by reduction in advances against these goods. This is done by issuing suitable instructions to the commercial banks on credit policy.

(5) **Custodian of Foreign Exchange Reserves;** Every country has need to obtain a certain amount of foreign currencies from time to time to meet its requirements and those of its citizens. Some citizens may have debts to discharge to foreigners; others may be engaged in the export and import trade and hence may need foreign currency to pay the foreign exporters; some others may need foreign currency for travel abroad. When, therefore, the citizens demand foreign currencies in exchange for the country's currency, this demand has to be met by the central bank of the country. Apart from this, the central bank has as its duty the fixation of the values of various foreign currencies in terms of the currency of the country. It has not only to fix these current exchange rates but also to publish them and implement them in the foreign

exchange transactions. What is more, the central bank has to safeguard the value of the currency of the country in the foreign exchange markets abroad. In other words, the bank has to be watchful in ensuring a steady and stable value for the country's monetary unit in the foreign exchange markets abroad. This calls for appropriate monetary measures in time on the part of the central bank.

The central bank has also the responsibility of protecting the foreign exchange reserves earned by the country through hard work and efficient production. Every country obtains foreign exchange reserves through foreign trade. The citizens of the country may also earn foreign exchange through the profits, interest and other remuneration received by them for their services abroad. Such remittances from abroad add to the exchange reserves of the country. Such reserves, which are difficult to build up, should not be frittered away by neglect. Here is a role for the central bank to see that these reserves are sparingly used and strictly for purposes which are in the true interests of the country. For example, these reserves should be used for meeting liabilities on account of surplus of imports over exports, for payments to be made to foreigners for the discharge of debts, and the genuine needs of the citizens for foreign currencies. The central bank is, therefore, charged with the responsibility of protecting these foreign exchange reserves of the country, preventing its wasteful use and putting it to the best use in the larger interests of the people of the country.

## INFLATION

### What Is Inflation?

We know that the prices of commodities are going up from time to time in our country as well as in various countries of the world. We read newspaper reports about this phenomenon of inflation which affects people's lives and the economy of the country. The man in the street often speaks of the prices having risen like the quick ascent of poison in the human body caused by a snake-bite. Do we refer to any and all kinds of price-rise as inflation? The answer is no. In economics the term inflation is used to refer to only a specific kind of price-rise with

a certain well-defined characteristic. Hence any and all kinds of rise in prices cannot be called inflation. Let us, therefore, explain now the characteristics of the kind of price-rise which alone is called inflation.

Inflation refers to a continuous general rise in all prices, i.e. a continuous rise of the general price level. If the prices keep moving up and down erratically, it is not inflation. For example, if the harvest is plentiful the prices of agricultural commodities will go down If, on the contrary, the harvest of grains is poor then grain prices will go up due to the fall in supply. Similar is the case of other agricultural products like fruits, rubber, coffee, etc. whose prices will be falling and rising according to seasonal conditions. Such seasonal price changes do not fall under the category of inflation.

Another point is to be noted with regard to inflation. The usual, and normal rise in the prices which occurs over the years in small degrees is not to be designated as inflation. On the other hand, an abnormal, excessive and almost unrestricted rise in the general price level is alone to be called iuflation in economics. If so, you may ask what is the difference between the ordinary price-rise and the inflationary price-rise? The answer is as follows: If during a year the general price level rises by only one or two per cent, such a price-rise is not inflation. On the other hand, if the rise in the general price level exceeds five per cent or so per year, then it is called inflation.

If we divide the nations of the world from the economic angle into capitalist countries and socialist countries (or communist countries), then inflation plays havoc only with the capitalist countries of the world. But communist countries like the U.S.S.R., China, Rumania, and East Germany seem to be free from the ghost of inflation. The basic reason for the absence of inflation in the socialist countries is that they have a central planning system of regulating and controlling the entire economy of the country on desired lines to achieve their socialistic objectives. As part of their planned economy; the prices are also planned to remain at a given level. Hence the prices are not left free to behave as they like but are kept pegged

at the level decided by the State. This is why, it is said, that prices remain stable at a given level in these countries for as long as 10 to 20 years at a stretch. This is especially so in the case of the prices of essential consumer goods of mass consumption.

On the contrary, the general price level is monkeying too much in the capitalist countries. The post-great war (1914-18 war) inflation in Germany is a case in point. Germany during the post-war years experienced a kind of extraordinary inflation called the run-away inflation. Prices rose almost everyday and the German currency, the mark, lost almost all its value. For instance, at the height of that inflation people had to take a cart-load of mark currency notes to the cobbler to buy a pair of shoes in exchange. It is even said that smokers rolled the worthless mark notes into cigarettes and smoked them. An inflation of this extreme or ridiculous degree was never before witnessed in any part of the world.

No doubt, during the past decade, almost all countries of the world are experiencing inflation of a more moderate degree. Even by 1973, in many capitalist countries, the general rise in the prise level had exceeded 10 per cent. In a few countries, the annual rate of inflation had exceeded 20 to 30 per cent during this period. Today, even the highly developed countries of Europe are not free from inflation. In some of the South American countries, the rate of inflation at times reaches levels (more than 50 per cent) which cause shock and astonishment to others. But people in these countries are accustomed to live with such inflation. In India, during the past few years inflation of the order of 20 to 30 per cent has become quite common. The causes for the present inflation in India include the following: One of the chief causes of this order of inflation in India is the sudden spurt in the prices of oil and petroleum products which the producing countries, namely, the Arab countries, have imposed on the buyers of the products during the past few years. India is one of the large importers of oil and petroleum products and hence has to put up with its inflationary consequences on the general price level of the country. Another reason for the inflationary potential in India is the excessive rate of population growth in the country. This

causes rising demand for consumer goods and services. As there are supply constraints and the production of such goods could not be increased correspondingly, the prices of these goods have shown an upward trend—demand—pull inflation. Besides, the rise in wages, salaries and interest rates which have taken place during the past few years in our country have increased the cost of production of goods and services all round. This has inevitably added to the existing inflationary pressures — cost — rush inflation. The present shortages of inputs like electricity, coal and cement supplies in our country have worsened the situation on the side of maintenance of supplies of goods. This has its share in the present inflation in our country. Also, our transport system has not been able to cope up with the increasing demand for goods and passenger transportation. The cost of operation of rail and road transport has also gone up causing a hike in fares and freights. All these have contributed their share of inflation. The presence of black-money in India on an unprecedented scale has worked havoc with our economy. The possession of huge amounts of black money in the hands of merchants, traders, businessmen and industrialists have enabled them to take to hoarding of goods, profiteering, smuggling and rigging of the prices of essential goods to make huge profits. Such black-money holders have almost a free hand in the present socio-economic-political set-up in our country. They can raise prices as they please and cause inflation to some extent. One important reason which has consistently contributed to inflation in our country, as in other countries, is the continued expansion of government expenditure. The continuing deficits in the budgets of both the Central and State Governments during the past many years have been responsible for a good dose of inflation. Lastly, the frequent failure of our monsoon rains and the periodic occurrence of drought have caused poor harvests of food grains and other agricultural commodities including inputs like cotton, oil seeds and sugarcane. These natural causes have accounted for a good measure of inflation in our country.

We have pointed out that the evidence of inflation is a continuous rise in the general price level. Therefore, we should

be clear that the rise in the prices of a few commodities of common consumption, out of hundreds of commodities consumed by the people of the country, does not constitute inflation. For example, if the prices of dhall and groundnut oil alone go up, it is not evidence of inflation. But if the prices of dhall, groundnut oil, rice, sugar, kerosene oil, cloth, paper, cement, bus-fare, rail-fare and freight, along with the prices of many others go up, this trend will certainly cause a spurt in the general price level in the country. It is such a general rise in prices and its continued upward trend which is known as inflation.

**Effects of Inflation**

We know now that when inflation occurs the general price level goes up. If the general price level goes up, the value of money automatically goes down. For example, suppose that the price of sugar was Rs.3 per kg. before the price-rise occurred; subsequently, let us say, it went up to Rs. 6 per kg. due to inflationary price-rise. What is the effect of this price-rise on the value of the rupee? It will be clear on a moment's reflection that this doubling of the price of sugar indeed means a halving of the value of money; that is, the value of money has become half of what it was earlier or its value has fallen by 50 per cent. We may also put it as follows: If the price level doubles, the value of money becomes half; if the price level quadruples, the value of money becomes a quarter. On the contrary, if the price level falls to half the value of money will double; if the price level falls to one-quarter, the value of money will increase four times. We should, therefore, understand that the causes for changes in the value of money are inflation and deflation. Deflation is the opposite of inflation, i.e. a fall in the general price level. Let us now explain the effects of inflation on the various classes of people in society.

How are those with fixed incomes affected by inflation? When the general price level goes up and, as a result, the value of money goes down correspondingly, the fixed-income groups are adversely affected. For example, those with fixed monthly or annual incomes and daily wage-earners will lose a part of

their real income (i.e., in terms of commodities or purchasing power) when the price level goes up. Though their money income remains the same, their real income undergoes a reduction due to inflation. Hence their money income will now purchase less commodities than before; there is no doubt that, as a result, their standard of living will be lowered. Thus inflation will unfavourably affect the lives of industrial workers, agricultural labourers salaried employees of government and government institutions, employees of shops and establishments, etc.

The class of people who are happy with inflation, as they are benefited by a general price-rise, are producers, traders, and self employed people. These are people with changing incomes and their incomes go up as the prices of the commodities they produce and sell go up due to inflation. Their profits increase with the increase in prices of their products.

Similar is the case of property-owners who stand to gain by inflation. During inflation, land values and property values go up considerably and they reap capital gains due to appreciation in value.

You may like to know what is the position of creditors and debtors during inflation. The debtor gains and the creditor loses during inflation. This is so because when the debtor borrowed money from the creditor the value of money would have been higher; but by the time he repays the money inflation would have lowered the value of money. Hence, the debtor would be paying less value now to the creditor than what he got earlier from the creditor. Though the sum of money repaid may be equal to the money borrowed, the purchasing power of the amount repaid will be less now due to inflation. For example, a debtor who borrowed Rs. 1000 before inflation will be paying back the same Rs. 1000 after inflation has set in. But the real value of this Rs. 1000 being returned now will be less than Rs. 1000, indeed.

You may be very eager to know, next, what is the effect of inflation on agriculturists who are the backbone of our country's

economy. They really stand to lose during inflation. The prices of the agricultural commodities like food grains and raw materials are more or less constant inspite of changes in output. This is because the demand for agricultural products tends to be constant. On the other hand, when there is a general rise in prices the prices of all manufactured goods which the agriculturists buy go up. But the prices of agricultural commodities would not go up as we have just stated. Therefore, the agriculturists will have to pay higher prices during inflation for the manufactured goods they buy; but, the prices they obtain for their agricultural products will remain constant during inflation. This makes them incur loss their position deteriorates during inflation.

Lastly, let us see how savers in the country are affected by inflation. Those who have been saving even before inflation and have accumulated sums of money for investment would stand to lose during inflation. This is because the value of their money savings would go down due to the rise in prices. In other words, the purchasing power of their savings would fall during inflation.

What lesson can we draw from the above discussion about the effects of inflation ? Inflation erodes the incomes of large sections of people in society. It destroys the real incomes of the fixed-income groups, especially the masses who work for fixed wages and salaries; also, it adversely affects agriculturists, savers and creditors. The money incomes of all these people lose their purchasing power; in other words, their standard of living is lowered by inflation. Indeed the economy of the country really undergoes distortion if not partial destruction due to the evil of inflation.

# 14. PUBLIC FINANCE

In the past centuries, Governments were content with performing a few essential functions in the political, social and economic spheres. The view of Government's functions during those days was essentially narrow. In fact the legitimate functions of a Government were thought to include only the following: defence of the country, maintenance of internal peace and order, minting of the currency of the country and conduct of the foreign affairs of the country. In all other matters which concerned the social and economic activities in the country, the Governments followed, in general, a policy of laissez-faire or non-intervention. It was thought that every individual in society should have the freedom and right to carry on his activities as he wished; to conduct his affairs in the way he thought it best; and to pursue and protect his interests according to his own wisdom. To put it in a nutshell, Governments strictly observed the principle of non-intervention in the affairs of the individuals in the social and economic spheres. In fact, the Government was content to be simply a police state.

This situtation underwent a change since the turn of 20th century. Governments began expanding their functions and extending their tentacles over more and more areas. The reasons for this change are the following: Social reformers, political leaders and religious men began to urge the Governments to intervene on behalf of the weak and oppressed who were exploited by the wealthy and strong. The democratic Governments, under the leadership of those who were determined to improve the economic and social welfare of the people, began to assume more and more functions and responsibilities. Government's attention and concern were directed to they spheres of the social and economic life of society, hitherto considered a taboo by earlier Governments. Governments throughout the world began to extend their activities and intervention over almost the entire economy. The following are the most notable sectors of intervention: Industrial sector, agricultural

sector, trade, transport, national savings, investment, employment, education, health and sanitation, drinking water-supply, public works, housing accommodation, reduction of poverty and similar spheres. All this was said to be done in the interests of the masses which needed protection. In fact, governments which were hitherto content with functioning as police states were now eager to become welfare states-states which were eager to ensure and protect the social and economic welfare of the common people. They indeed became the protectors of the weak, saviours of the working class people, the champion of the poor and the depressed, and the dispensers of right and justice. This became the order of the day among the Governments in the present century.

Due to this revolutionary change, the functions and services of the government were multiplied. They have increased so much that today one can say that there is practically no sphere of life of the society which the government has not touched. In accordance with the expansion of government's activities, the expenditure of the government has also increased correspondingly. What is more, even those Governments which were deeply wedded to capitalism and a policy of laissez-faire have become converted to the philosophy of the welfare state. For example, today, even the people of the United States and Great Britain welcome Government intervention in the social and economic activities of individuals and institutions. This has spurred Government expenditure which is continually expanding even in these capitalist countries. On the other hand, in mixed economies like India which have democratic governments, the rôle of the government in the economy is assuming huge proportions. In fact, in these countries, about half of the national income is accounted for by the Government sector or Public sector.

As Government's expenditure is increasing year by year, Government's revenues should also increase to cope up with this growing expenditure. To obtain such increasing revenues, government imposes additional taxes on the people. Of course, a part of the revenues of the Governments is obtained from other sources like Government's assets and properties, State

trading activities, and public sector industrial undertakings. But the major source of government's income is still tax revenues. Such tax revenues are derived from the imposition of various taxes. Let us, therefore, deal now with the natures and kinds of taxes.

**Nature of Taxes**

Why are taxes levied? They are levied and collected by Government from the people for meeting its financial needs, i.e., for financing Government's functions and services; also for undertaking welfare and social security measures for the benefit of the people. Taxes are generally imposed on all the citizens in the country. In early times they were levied only on a section of the people, especially, the wealthy landlords, industrialists and other rich people who had large assets and incomes. For instance, in England, in the earlier centuries taxes were levied only on the owners of houses and buildings based on the number of windows in the house or building. But with the passage of time, as Government's financial needs were growing for performing its enlarged functions, Government had to spread its tax net wider and wider. Therefore, almost all sections of people had to be gradually brought within the tax net in course of time to meet the growing needs of Government for more and more revenues. Taxes came to be levied on the rich as well as the poor based on their capacity to pay. While taxes on the rich take the form of property taxes and income taxes, the taxes on the poor are in the form of commodity taxes on the goods they mostly buy and consume. Examples of such commodity taxes are the following: salt tax, taxes on matches, kerosene, sugar, flour, tea, liquor, beedies, cigars and cigarettes.

Tax is to be defined as a compulsory payment to be made to the State by all the citizens of the country, irrespective of any benefits in return—without any 'quid pro quo' as the phrase goes. The individual tax-payer should not expect any benefit or compensation in return for the tax he is called upon to pay. This is because the services rendered by Government can only result in common benefits to be enjoyed by all the citizens. No individual citizen can demand that he should be

personally benefited by Government's services in return for the tax he pays. For instance, the services of Government to the citizens of the country like defence, justice, peace and order, health facilities, and provision of educational facilities cannot be made to benefit each and every citizen individually. But these services are rendered to increase the general welfare of the citizens and improve their living conditions. Hence these benefits are open to all the citizens.

Besides these general taxes, Government has another source of income, namely, special fees for services rendered to the concerned individuals. For example, for granting permission to individuals to run businesses licence fees are collected. Similarly, licence fees are levied while granting licences to keep guns and revolvers. These fees are different from general taxes as they are required to be paid only by those persons who wish to have special services rendered to them as individuals.

It is, therefore, important for us to have a clear idea of the meaning of a tax. A tax is a compulsory payment made to the Government, subject to specific conditions. It is not a payment in exchange for a service or benefit rendered by Government to particular individuals. Therefore, there cannot be any 'quid pro quo' between the Government and the tax-payers.

There is a third type of taxes which local bodies like district boards, municipalities, and village panchayats collect from their citizens for financing certain services rendered by them. A major portion of the expenditure incurred by them for rendering these services to people living within their respective areas is collected as local taxes and rates from the citizens. The revenues so collected are spent for providing certain direct benefits to all the citizens within their jurisdiction. For example, the construction of roads for the benefit of citizens living in the concerned area, provision of street lighting, provision of health and sanitation facilities and construction of parks and market places are the type of benefits which will be ordinarily provided by local bodies. These local rates and taxes are slightly different from the taxes levied by the Central and

State Governments. It is to differentiate them from the other taxes that they are called local rates and taxes of local bodies. Examples of these are taxes on property, taxes on houses, taxes on vehicles, and water and electricity rates Property and house taxes are levied on the basis of the annual rental value of properties.

**Kinds of Taxes**

The taxes that are levied by Governments throughout the world may be broadly classified as: (1) Proportional taxes, (2) Progressive taxes, (3) Direct taxes and (4) Indirect taxes.

Let us now look into their characteristics :

**(1) Proportional taxes :** These taxes vary according to the amount of the income or value of the property which is taxed. The amount of the tax will vary in direct proportion to the amount of the income taxed. For example, suppose an income tax is levied at the rate of ten paise per rupee of income. In that case, a person with Rs. 1000 income will have to pay Rs. 100 as tax. Similarly, a person whose income is Rs. 10,000 will pay as tax Rs. 1000. Taxes on imports into the country are normally levied only on this proportional basis. Such import duties are imposed on goods proportionately according to their weight or according to their value.

**(2) Progressive taxes :** These taxes are levied on incomes or the annual rental value of properties. The rates of taxation will be graduated according to the amounts of income or annual rentals taxed. In other words, the tax rate will be higher for the higher income or rental and will be lower for the lower income or rental. The tax rate on incomes will not be a uniform rate per rupee for all incomes. Instead, it may be, say, 15 per cent for incomes between Rs. 10,000 and Rs. 15,000; but for the higher income slab of Rs. 15,001 to 20,000 the tax rate will be higher, say, 20 per cent. Such a tax system is known as progressive taxation. In most countries of the world income-taxes are based on this system of progressive taxation. The reason for this progressive taxation is the principle of taxation which is known as the 'ability to pay' principle. Economists,

political thinkers, and social reformers have urged on the Governments to adopt this principle of ability to pay in levying taxes on people with differing incomes. In fact this principle requires that tax-payers should undergo 'equal sacrifice' in paying the taxes. Such equality of sacrifice can be ensured only by taxing the rich at a higher rate per rupee while taxing the poor at a lower rate per rupee. In other words, higher incomes should be taxed at progressively higher rates in accordance with this principle.

**(3) Direct taxes :** Direct tax refers to a tax which is imposed on the person who is intended to pay and who has ultimately to bear it. The person who initially pays this tax will not be able to shift its incidence on others. A good example of direct taxes is the income-tax. The person who pays the income-tax will not be able to compensate himself by collecting this tax amount from others. The estate duty or death duty which is levied on the property of the deceased is also a kind of direct tax.

**(4) Indirect taxes :** Sometimes, though the tax is collected from a certain individual, it is not the intention of Government that he should himself ultimately bear it. The expectation of the Government is that, the person who pays the tax in the first instance may shift the tax on to others. In other words, he can collect the tax from others, may be buyers of his commodity, and compensate himself. Such taxes are called indirect taxes. Examples of indirect taxes are taxes on drugs and medicines, liquor, dress, toilet and beauty products, raw materials and inputs, besides import duties on various consumer goods. The import taxes are first collected from the importers. But, later when they sell these goods they compensate themselves by collecting these taxes from the buyers of their goods. Excise and customs duties on goods and sales taxes on purchases of goods in India are good examples of indirect taxes.

**Adam Smith's Canons of Taxation**

We have also to realise the great inportance of Government's planning the levy and collection of its taxes so as to cause the minimum unavoidable sacrifice to the tax payers.

According to economists taxes should have certain characteristics and beneficial features if they are to be considered as good taxes. Government should naturally devise such a good tax system in the interests of its tax payers. It was Adam Smith, one of the greatest thinkers of all times on the economic problems of the State, who formulated the norms to be followed by Governments in the levy and collection of their taxes. Because of their great importance and excellence as basic norms for good taxes, they have come to be known as the 'canons of taxation' (They seem to have almost the sanctity of religious commandments). Let us now examine these four canons of taxation.

**(1) Equity:** Taxes should be based on the principle of equity. It means that the citizens of the country should be required to pay taxes as far as possible in accordace with their individual 'ability to pay'. We may ask, what is meant by the ability to pay? Ability to pay refers to the income level of the tax payer. This principle requires higher taxation of higher incomes and lower taxation of lower incomes. Equity here, therefore, does not mean equal taxation but 'equality of sacrifice'. Such equality of sacrifice requires that individuals should be taxed according to their income levels.

**(2) Certainty:** The tax that the tax-payer is called upon to pay should be made certain, i.e., the amount of tax to be paid should be made clear and not left vague. It should not be arbitrary and left to be guessed by the tax-payer. Also, the period of time within which the tax should be paid, and the manner of payment of the tax should be informed to the tax-payer. There should be no doubt in the mind of the tax-payer regarding these details of the tax. Only if all these details are clearly known to the tax-payer much in advance, he will be able to plan his expenditure out of his income after setting a part the amount of the tax. Even from the Government's point of view, it will help in planning its budget and other fiscal operations if it knows in advance how much tax revenues it can expect, and when it can expect these revenues. If, therefore. such information is to be known both to the Govern-

ment and the tax-payer, in advance, Government should have a set-up to provide regularly such information to the public and the tax-payers. Adequate arrangement for giving publicity to such information will be needed. In democratic countries, the budget of the Government and the tax proposals for the year are always discussed at length in their legislatures or parliaments. Hence, in these countries, people have every opportunity of knowing the information they need about taxes being levied. In this way, certainty of taxes is made certain in democratic countries.

**(3) Convenience:** Every tax should be levied and collected at a time which is most convenient and suitable for the tax payer to pay the tax. Also, the manner of collection of tax should be such as to make it easy for the tax payer. If this canon of convenience is observed, even the poorer section of citizens will be enabled to pay the tax. For example, in our country, tax on sales tax on commodities is made generally convenient to pay as these are collected from the consumers when the commodities are sold to them. These taxes are collected along with the prices of the commodities and the buyers are not put to much inconvenience in paying them at the time of purchases. Similarly taxes on land and rentals of houses are collected when the harvest from land is available or the rental from house is received. This is to ensure convenience to the tax-payers. In the case of income-tax, in our country, the taxes due from employees are collected every month at the source of income, i.e., from their salaries in easy instalments. This is in accord with the canon of convenience.

**(4) Economy:** When taxes are to be collected, tax-collectors have to be engaged and paid for their services. This means expenditure of a certain amount has to be incurred to collect a certain amount of taxes. In other words, a part of the tax amount collected has to be spent on its collection. If this expenditure on collection is a very small part of the total tax collected, there is no problem. But, in the case of certain taxes, the expenditure on their collection may form a large part of the tax amount collected. If so, the tax-payers are put to excessive sacrifice, as the taxes they pay are mostly lost on the middlemen

tax-collectors. Also, what remains of the taxes collected in the hands of the Government will be much less than the amount of taxes paid by the tax-payers. In other words, the income from taxes to the Government will be much less than what has been taken out of the pockets of the tax-payers. Such taxes benefit neither the country nor the tax-payers. It is a loss to both. Therefore, it is clear that only those taxes are good which do not require more than a small fraction of the tax amounts to be spent on their collection.

For example, to collect the income-taxes, excise duties and sales taxes in our country Government employs a large army of tax-collectors. The huge salary bill for this large force of tax-collectors and the very large sums spent on the construction of huge office buildings for them eats away a substantial proportion (say, about a quarter) of the tax revenues. The tax revenues to the Government from these taxes is substantially reduced by this huge expenditure on collection. Thus a good portion of the tax collected is almost wasted. Graphically speaking, a good part of the tax-payers' money picked from his pocket by Government taxation, leaks out on the way, as it does not reach the Government's coffers. This is blatantly uneconomical and against the canon of economy. Hence, governments should try to devise such taxes which involve least expenditure on their collection, if the canon of economy is to be faithfully observed.

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